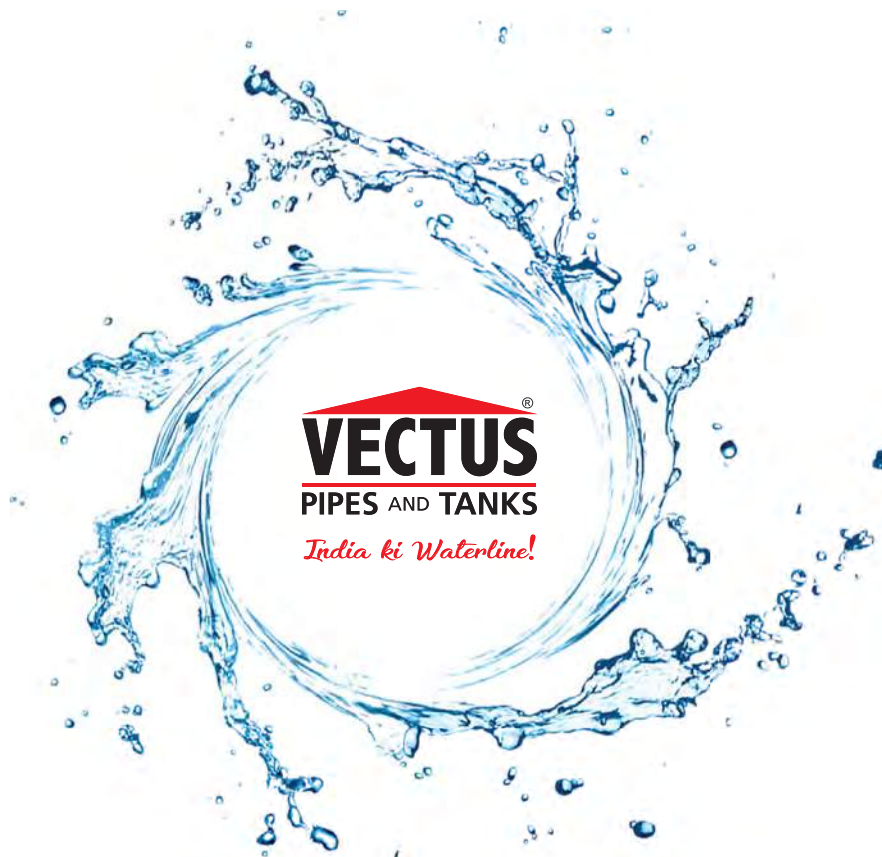


Company Profile





About Us

With presence across the length & breadth of the country, and a footprint of over 30 years in the industry, Vectus Industries Limited is one of the leading Polymer Based Water Storage Solutions companies in India; primarily in the business of manufacturing water storage tanks and piping systems.

With more than 4300 dealers and distributors, 14 manufacturing plants and 4 depots across the country, Vectus has become India's one of the leading and fastest growing Water Storage and Piping System company.

Keeping abreast with the national and international standards of quality, Vectus Industries Limited is an ISO 9001:2015 Certified Company.

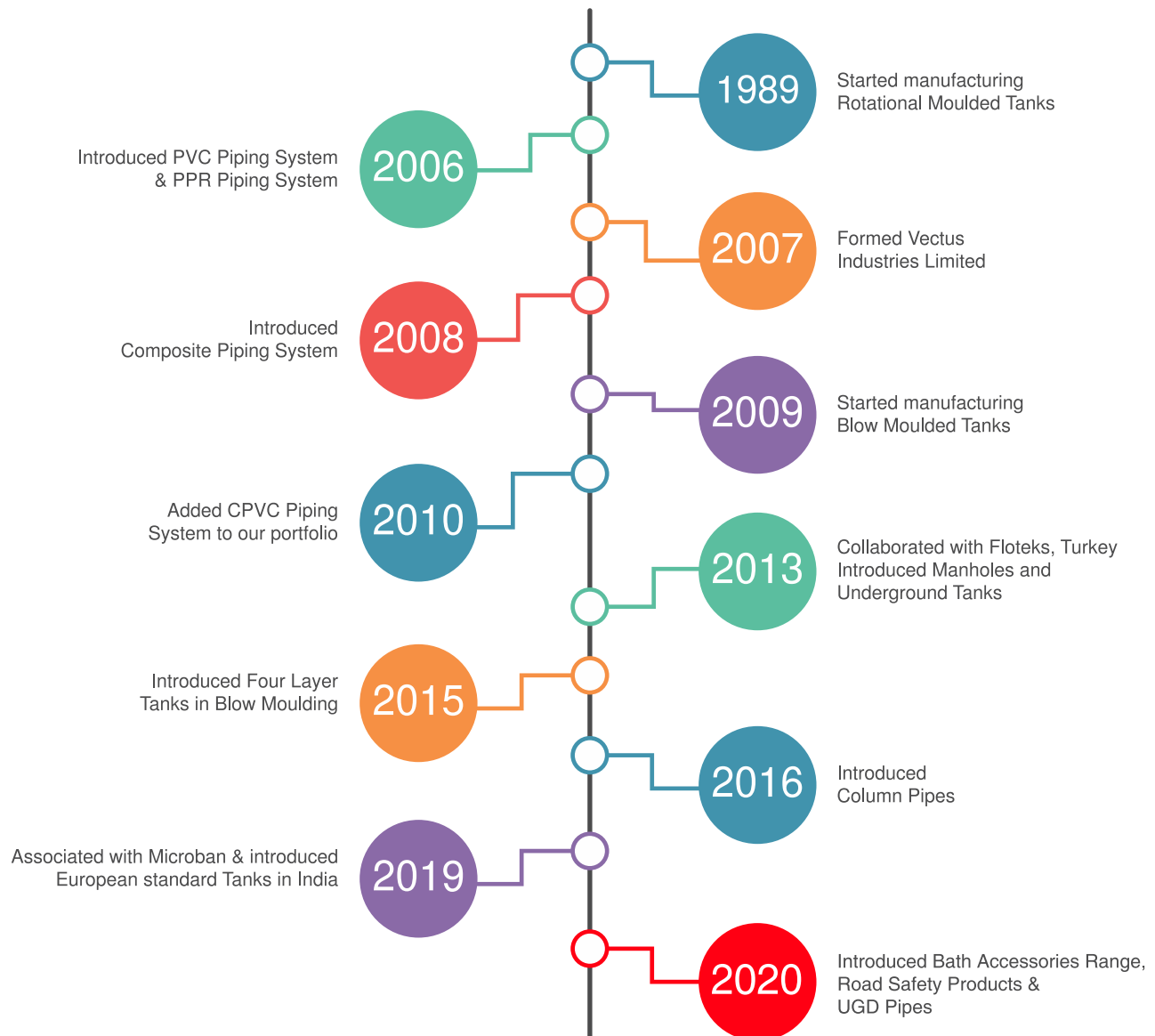
From being the first in India to introduce blow moulded tanks to being one of the largest manufacturer of blow moulded tanks in the world, Vectus Industries Limited is one of the leading water storage and piping solutions provider in India; catering to residential, commercial, industrial, infrastructural and agricultural sectors.

It operates across five distinct product verticals namely:

- 1. Water storage tanks**
- 2. Pipes and fittings**
- 3. Household moulded plastic products**
- 4. Bath accessories range**
- 5. Road safety barricades**

Hence, it's a one-stop solution for all kinds of water storage & water transference needs. Owing a strong brand recall for plastic water storage tanks, Vectus also has one of the most diversified product portfolios in the pipes segment. The company's focus on quality and value for money product range are applauded both amidst vendors and customers.

< Milestones >



“

Recent Awards and Accolades



SAP HANA Innovation Award 2017

Vectus Industries Limited has been felicitated by the SAP HANA Innovation Award 2017 for reducing operational costs by implementing SAP S/4 HANA 1511 On-Premise Edition across PAN India operations.

World's Greatest Brands 2015 Asia & GCC

The team of experts after much deliberation and consideration, rewarded and acknowledged Vectus Industries Ltd. as one of the World's Greatest Brands Asia 2015 in a prestigious award ceremony held in Dubai.



”

< Our Product Portfolio >

We are a complete water storage solution provider company. With our three decades of trust, superior quality, cutting edge technology and consumer friendly designs, our products enjoy a proven track record of excellence. Our overhead and underground tanks are designed and manufactured keeping in mind the industry needs and the ever-changing demands of our consumers. Water is the lifeline for every being, we at Vectus, with our complete range of Plumbing system to Water storage solution in household, agriculture and industrial sector, touch millions of lives across the country, which makes us "India ki Waterline". Vectus manufactures an extensive range of products for agricultural, industrial and domestic applications under these product categories,

- ▶ Vectus Pipes and Fittings
- ▶ Vectus Water Storage Tanks (Overhead and Underground Tanks)
- ▶ Vectus Household Moulded Plastic Products



< Piping Systems >

To transfer water in the most apt manner, ensuring not even a drop is wasted is the most challenging task. We all know the current situation of water on our planet. So it becomes more important for us as a company to be more responsible. The reason why, we keep innovating and researching to create products to conserve this most essential element of life.

A piping system plays an important role as it is responsible for transferring water from the source to the end user without causing any leakage or wastage. Having a good labyrinth of piping is one thing. But having a piping system that does not corrode, crack or break due to external force or internal water pressure is what is the most important factor to be considered while choosing a piping system.

Be it the transfer of potable water from a water source to homes or for industrial use, it is necessary that a piping system is strong enough to bear any external force, sustain under any environmental conditions.

We are one of the largest manufacturers of PVC pipes. Our well-diversified portfolio of piping systems is ideal for

industrial, household, as well as, agricultural needs. Besides the piping systems for transference of water, we also manufacture piping systems suitable to be used for other liquids and gases as well.

Our line of Vectus Piping Systems:

- ▶ CPVC Piping System
- ▶ uPVC Piping System
- ▶ PPR Piping System
- ▶ Composite Piping System
- ▶ SWR Drainage System
- ▶ Agri Pressure Plus Pipes
- ▶ Column Pipes
- ▶ Casing Pipes
- ▶ HDPE Pipes
- ▶ UG Drainage Piping System



CPVC Piping System



Vectus CPVC Pipes and fittings are manufactured using world class raw material and technology, which makes them ideal for both hot and cold water distribution systems. These pipes are made from a special plastic, chemically known as Chlorinated Polyvinyl Chloride, commonly known as CPVC.

These pipes are a unique combination of high impact resistance, with no compromise in the pressure bearing capacity / tensile strength or Vicat softening temperature. These qualities lower the chances of cracks / damages while handling, during storage and installation.

The pipes are manufactured as per ASTM F 441 while the fittings are manufactured as per ASTM D 2846 & ASTM F 439 in CTS (Copper Tube Sizing).

- Pipes are available in SDR 11, SDR 13.5, SCH 40 & SCH 80
- The available range of pipes and fittings varies from 15 mm to 100 mm



► Features



High Strength



UV Resistant



Maintenance Free



Self-Extinguishing



Can Withstand upto 82°C

► Applications



Hot & Cold Plumbing



Carrying Corrosive Fluids



Transference of Drinking Water



Residential Purposes



Industrial Use

Vectus uPVC Pipes and fittings are specifically designed for cold water operations in residential buildings and offices. These pipes are non-toxic and lead free which makes them safe for carrying potable water. The jointing process is accomplished quickly and easily using inexpensive tools. Hence, reducing labor and installation cost to a great extent.

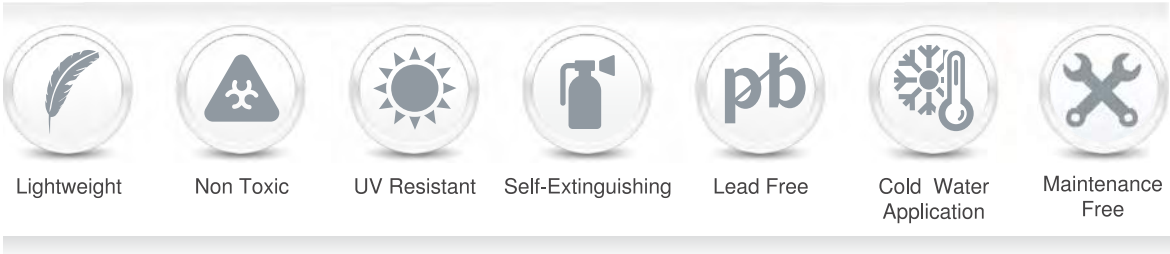
Vectus uPVC pipes are manufactured as per ASTM D 1785 & fittings as per ASTM D 2467, wherein pipes are available in SCH 40 and SCH 80.

- The available range of pipes and fittings varies from 15 mm to 100 mm.

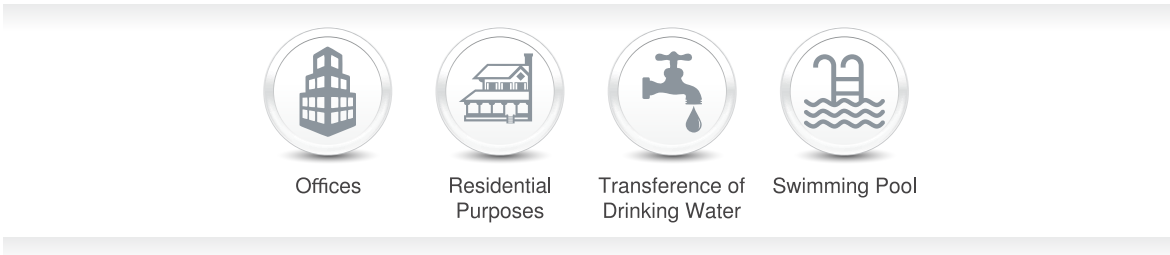
uPVC Piping System



► Features



► Applications



PPR Piping System



Vectus PPR Pipes and fittings are manufactured using Polypropylene Random Copolymer (PP-RC), which is the most reliable polymer in the piping industry. The superior physical characteristics of PPR such as having a working temperature from -20° upto 95°C, along with excellent chemical resistance, providing a definite solution to oxidation and calcification; make Vectus PPR Piping Systems ideal primarily for chemical transportation, in pharmaceutical companies and for other industrial use, as well as, hot & cold water plumbing systems in buildings and industrial piping.

Due to the high levels of strength and light weight, Vectus PPR Piping Systems prove to be the most trusted piping systems to be employed in industrial applications and water supply (hot and cold).

The physio-chemical features of Polypropylene Random Copolymer and the type of welding carried out - fusion welding - ensures that the piping system maintains a perfect seal even under the most difficult conditions, which makes it suitable to be used for various other systems like air distribution, radiator heating, etc. Vectus PPR Piping Systems are physically superior, hygienically safe and non-carcinogenic. The Pipes are manufactured as per IS 15801 and are available in PN 6, PN 10, PN 16 & PN 20.

- The available range of pipes and fittings varies from 16 mm to 160 mm
- The pipes & fittings are available in 2 different colours: ☐ ☒



► Features

Can with stand upto 95°C	Low on Sound	Anti Bacterial	Economical	Low Thermal Expansion	Durable

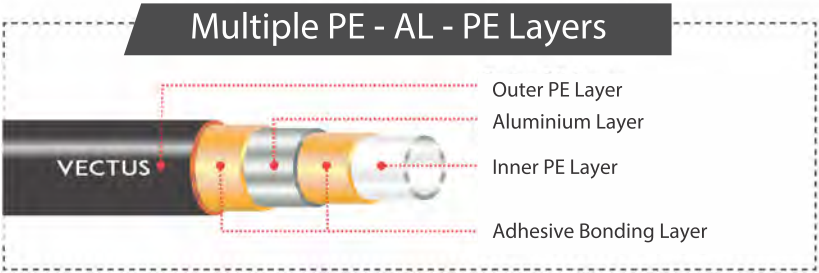
► Applications

Hot & Cold Plumbing	Transference of Drinking Water	Residential Purposes	Radiator	Air Distribution

Vectus Industries Limited manufactures PE-AL-PE multi-layer Composite Pipes, which are composed of an aluminium core encased in an inner and outer layer of Polyethylene. All the layers are permanently bonded together by intermediate adhesive layers

The thickness of the aluminium layer in Vectus Composite Pipes has been selected to meet compressive and flexural strength requirements. This helps to combine the advantages of metal and plastic pipes and eliminate the disadvantages of both materials at the same time.

Composite Piping System



The aluminium core is absolutely diffusion tight and reliably prevents oxygen or gases from permeating into the pipe. It compensates and reduces snap-back forces and heat expansion with changes in temperature.

Vectus Black composite pipes are manufactured as per IS 15450:2000 and yellow pipes as per ASTM F 1282.

The available range of pipes and fittings varies from 1014 to 4050



► Features



High Strength



Chemically Inert



Smooth Bore



Easy to Bend
& Retract



Can With stand
upto 95°C

► Applications



Hot & Cold
Water Application



Radiator
Heating System



Transit of Compressed
Air & Gas



Conduit of Fiber
Cable Operation



Cooling
System

SWR Drainage System



Vectus SWR (Soil, Waste and Rainwater) Drainage System includes a wide range of soil, waste and rain water plumbing products for residential and industrial developments. The system is available in Ring-Fit and Self-Fit options, wherein the pipes are manufactured as per IS 13592 and fittings are as per IS 14735.

Vectus SWR pipes and fittings are available from 75 mm to 160 mm.

The pipes are available in two types:

- Type A - Used for ventilation pipe work and rainwater harvesting.
- Type B - Used for soil and waste discharge systems.



► Features



Lightweight



UV Resistant



Leak Proof Joint



Yellow Ring for Fast Installation

► Applications



Offices



Residential Purposes



Industrial Use



Hospitals



Sewage & Waste Water Lines



Rainwater Drainage

Vectus Pressure Plus Pipes are manufactured using world class uPVC material, which is achieved by un-plasticizing PVC material, to get more strength and stiffness. The material used for producing these pipes has the ability to stabilize the UV radiation and since it is plastic, so the probability of corossion is nil, which makes these pipes ideal for use in agricultural or any other outdoor operations.

Vectus Pressure Plus Pipes are manufactured in accordance with IS 4985 standard, covering range from 20 mm to 250 mm in pressure ratings of 2.5, 4, 6 & 10 Kg/cm². The moulded fittings are manufactured as per IS 7834 standard.

Agri Piping System



► Features



Lightweight



UV Resistant



High
Strength



Ideal for
harsh environment

► Applications



Industrial Mining



Industrial Use



Irrigation



Suitable for
Sandy & Saline Water

Column Pipes

Vectus Column Pipes are made from strong uPVC material which makes these pipes ideal for handling water under high pressure. The pipes are available in Socket and Belling type. One of the ends has a female socket and the other has threads. Therefore, the pipes do not require any fittings. The inner surface of Vectus column pipes are very smooth, it doesn't let the water put pressure on the joints, hence also known as Pressure Pipes.

- Belling shaped pipes are available from 1" to 1½"
- Socket shaped pipes are available from 1" to 4"



► Features



Self
Extinguishing



Maintenance
Free



Chemical &
Corrosion Resistant



Smooth Bore



Long Lasting



Transference of
Drinking Water

► Applications



Industrial Mining



Chemical
Distribution



Irrigation



Suitable for
Sandy & Saline Water

Vectus HDPE Pipes are manufactured from High Density Polyethylene and as per IS 4984. The pipes are recommended for maximum water temperature of +45° C. They may also be used up to the ambient temperature of -45° C as long as the temperature of the water inside the pipe does not exceed the operating temperature of 27° C. The pipes are extremely useful in water supply, bore well, sprinkler, irrigation, pesticide dispersal, cable ducting, sewage/drainage, natural gas & other gases etc. in urban and rural areas.

- In PE - 63, pipes are available from 20 mm to 400 mm
 - In PE - 80 and PE - 100, pipes are available from 20 mm to 400 mm and 32 mm to 400 mm respectively.
 - 20 to 40 mm sizes are available in 100 mtr. to 500 mtr. coil.
 - 50 to 60 mm sizes are available in 100 mtr. to 300 mtr. coil.
 - 75 mm size is available in 100 mtr. to 200 mtr. coil.
 - 90 to 110 mm sizes are available in 100 mtr. coil
- (These will be supplied from Banmore unit).

HDPE Pipes



► Features



UV Resistant



High Strength



Anti Bacterial



Economical



Durable

► Applications



Telephone
Cable Protection



Transference of
Drinking Water



Industrial Use



Irrigation



Sewage & Waste
Water Lines



Gas & Oil
Transmission

UG Drainage Piping System



Vectus presents UPVC Underground Drainage Pipes which are manufactured according to IS standard - 15328 with ISI Mark CM/L- 8300133310. These pipes are made up of unplasticized Polyvinyl Chloride and are intended for underground non- pressure gravity drain and sewer applications for transportation of soil & waste discharge of domestic origin, surface water and Industrial effluent and are useful in both domestic, commercial and industrial applications.

These pipes are less expensive and comparatively lighter yet stronger than other PVC Pipes/Concrete pipe of similar stiffness with equivalent load carrying capacity. The available range of pipes varies from 63 mm to 250 mm.



► Features



Lightweight



Long Life



Maintenance Free



Leak Proof Joint



Black Ring for Fast Installation



Economical

► Applications



Industrial Use



Sewage & Waste Water Lines



Rainwater Drainage



< Vectus Water Storage Tanks >

The average daily consumption of water by a person in India is about 200 to 300 litres. With our population crossing 1.32 billion, imagine how quickly we're losing out on our natural resources. At a domestic level, what one can do to use water judiciously and be responsible towards the environment is to conserve it in the best possible way.

This is where the Water Storage Tanks come into play. They are the most reliable and convenient way to store and conserve water for later use. Every household / industry and even a farm needs a water storage tank for a smooth day-to-day functioning.

From being the first in India to introduce blow moulded tanks to being the largest manufacturer of blow moulded tanks in the world, Vectus tanks are strong, durable, anti-bacterial with UV protection technology and most importantly they are leakage-proof.

Our tanks are available in 2, 3 & 4 protective layers and in a variety of colours, one can choose as per their needs. The tanks are manufactured by using two different processes.

- ▶ Blow Moulding
- ▶ Roto Moulding



< Blow Moulding Process >

Blow Moulding process is a specific manufacturing process by which hollow plastic objects are formed. The Blow Moulding process begins with melting down the plastic and forming it into a parison. The parison is a tube-like piece of plastic with a hole in one end through which compressed air can pass.

The parison is then clamped into a mould and air is blown into it. The air pressure then pushes the plastic out to match the mould. Once the plastic has cooled and hardened the mould opens up and the part is ejected.

It is a highly versatile manufacturing option that allows for unlimited design possibilities. The process also has a number of inherent design strengths, such as consistent wall thickness and strong outside corners which are virtually stress free. For additional strength, ribs form an integral part of the design.

< Roto Moulding Process >

Rotational Moulding involves a heated hollow mould which is filled with a charge or shot weight of material. It is then slowly rotated (usually around two perpendicular axes), causing the softened material to disperse and stick to the walls of the mould. In order to maintain even thickness throughout the part, the mould continues to rotate at all times during the heating phase and to avoid sagging or deformation also during the cooling phase.

Vectus has installed the state-of-the-art plants which are one of their kind in the subcontinent, encompassing the complete process in-house, beginning from extrusion, pulverisation to roto moulding on Bi-Axial Roto Moulding machine.

Vectus ISI is a superior quality Rotational Moulded water tank conforming to IS 12701: 1996 (reaffirmed 2006).

Polyethylene (PE) of Rotational Moulded Grade, which is duly stabilized with anti – oxidants is used as raw material for manufacturing of the tank. The compound, hence formed, provides protection against heat and oxidation of tanks. The nominal service temperature of Vectus ISI tanks varies from 1° C to 50° C.

Since, we use the conventional Rotational Moulding technology for manufacturing of these tanks, therefore, the finished product comes out to be stronger and more rigid as compared to other tanks in the market. Vectus ISI tanks are available from 200 liters to 10,000 litres.

Vectus ISI Tanks



Salient Features

- ▶ Virgin raw material
- ▶ Heat & oxidation resistant
- ▶ Threaded lid for ease of opening and closing
- ▶ Smooth surface finish
- ▶ 5 years of Guarantee
- ▶ Odour free



PE Manholes



Manhole chamber is a major component of any sewage & drainage network. It is used in domestic & industrial sewage/ drainage systems. It is an access point to public utilities and other important service hardware for people. That includes access to sewers, telephone lines, electrical cabling, storm drains, district heating, and gas utilities. This means that manholes do more than providing access to big tunnels. While using Vectus Manhole Chamber, one can change the direction, diameter of pipe and gradient of any sewage & drainage line.

Traditionally, Manhole & inspection chamber was made using concrete & bricks in India. But the underground water, chemicals & gases would always cause cracks & leakages.

PE manholes designed as per the latest and most comprehensive European standards EN 13598 - 2 have a proven track record with many advantages over conventional brick or concrete manholes:

- ▶ Significantly faster, safer and easier installation - hours vs. days / weeks;
- ▶ No maintenance - no corrosion and hydraulically optimized flow profiles;
- ▶ Highly durable - over 50 years of service life in challenging site conditions ranging from heavy vehicular load, industrial waste to high water table.
- ▶ Environment friendly.



< Vectus Underground Water Storage Tank >

With the increasing population and demands of every individual, conserving space has become the utmost concern for a diverse country like ours. Minimalism is the key to create more space and our line of products truly hold this characteristic. Besides underground solutions, convenience of mobility is also a unique feature which saves money and valuable time to build facilities.

Unique Features

- ▶ Structurally strong
- ▶ Lifting provision for easy handling
- ▶ Made of food grade material which makes it resistant to fungus and bacterial growth
- ▶ Easy to install
- ▶ Comes with an airtight manhole cover assembly that prevents contaminants from flowing into the tank
- ▶ Being modular, it's easy to expand
- ▶ Impermeable to roots of trees
- ▶ One piece Roto Moulded tank without any joints, hence leakage proof.

Benefits

- ▶ Zero foot print as completely underground
- ▶ Durable & Light weight
- ▶ Corrosion resistant
- ▶ Easy to handle
- ▶ Easy to relocate
- ▶ Easy to Maintain/ Clean

Multipurpose

- ▶ Underground Water Storage
- ▶ Rainwater Harvesting
- ▶ Water storage for Industries
- ▶ Storage for fire fighting
- ▶ Reservoirs for irrigation system





BIS Licenses



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
भोपाल Bhopal Branch Office

पता भोपाल शाखा कार्यालय/मानकलाया,ई-5,
Address: अरेरा कॉलोनी,बिटन मार्केट,भोपाल - 462016
Mankalaya, E-5 Arera Colony
Bitten Market-Bhopal|462016

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वेब web : <http://www.bis.org.in>, www.manakonline.in

लाइसेंस संख्या सी एम/एल - 8200019204 की संलग्नी
ATTACHMENT TO LICENCE NO, CM/L - 8200019204

सी एम/एल संख्या, CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8200019204	Ms Vectus Industries Limited Plot No. 41,42 Industrial Area Banmorem Distt : Morena - 476444 Madhya Pradesh	polyethylene pipes for water supplies	IS 4984 : 2016

पृष्ठांकन संख्या 6 दिनांक
ENDORSEMENT NO. 6 DATED

5/11/18

The following addition in the scope of licence has been approved by the Bureau with effect from Sixteen November Two Thousand and Eighteen.

As per Annexure -1 Attached

Consequent upon the above changes, the revised scope of licence in Column (2) of the table in first schedule of the Licence along with the Standard Mark in Column (1) of first schedule is amended as follows :

As per Annexure -2 Attached

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।
Other terms and conditions of Licence remain the same.

प्रती भटनागर
PRITI BHATNAGAR
वैज्ञानिक-ई एवं प्रमुख
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

भोपाल शाखा कार्यालय
Bhopal Branch Office

पता :

भोपाल शाखा कार्यालय|मानकलाया,ई-5 अररा कॉलोनी|बित्तन
मार्केट|भोपाल - 462016
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Bitten Market-Bhopal|462016

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वेब :

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**ANNEXURE-1 TO ENDORSEMENT NO. 06 FOR LICENCE HAVING
CM/L- 8200019204 AS PER IS 4984:2016**

	Material Grades		
	PE 63	PE 80	PE 100
Pressure Ratings	Sizes (Nominal Diameter), in mm		
PN 6	200, 225, 250, 280, 315, 355, 400	200, 225, 250, 280, 315, 355, 400	200, 225, 250, 280, 315, 355, 400
PN 8	200, 225, 250, 280, 315, 355, 400	200, 225, 250, 280, 315, 355, 400	200, 225, 250, 280, 315, 355, 400
PN 10	Not Applicable	200, 225, 250, 280, 315, 355, 400	200, 225, 250, 280, 315, 355, 400


प्रीती भटनागर
PRITI BHATHAGAR
वैज्ञानिक-ई एवं प्रमुख
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

भोपाल शाखा कार्यालय
Bhopal Branch Office

पता : भोपाल शाखा कार्यालय/मानकलाया, ई-5 अरेरा कॉलोनी/बितन
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2442550
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ANNEXURE-2 TO ENDORSEMENT NO. 06 FOR LICENCE HAVING
CM/L- 8200019204 AS PER IS 4984:2016

Pressure Ratings	Material Grades		
	PE 63	PE 80	PE 100
Sizes (Nominal Diameter), in mm			
PN 4.0	40, 50, 63, 75, 90, 110, 125, 140, 160, 180	50, 63, 75, 90, 110, 125, 140, 160, 180	No Size Covered.
PN 6.0	32, 40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400	40, 50, 63, 75, 90, 110, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400	50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400
PN 8.0	25, 32, 40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400	32, 40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400	40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400
PN 10.0	Not Applicable	25, 32, 40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400	32, 40, 50, 63, 75, 90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315, 355, 400

प्रती भटनागर
PRITI BHATNAGAR
वैज्ञानिक-ई एवं प्रमुख
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
भोपाल Bhopal Branch Office

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वेब web: <http://www.bis.org.in>, www.manakonline.in

पजीकृत/पावती

हमारा संदर्भ : BPLBO/L- 8200019204

दिनांक - 18/7/19

विषय : प्रमाणन मुहर लाइसेंस संख्या सी एम/एल - 8200019204 का नवीकरण
आई एस - 4984 : 2016

मेसर्स वैक्टस इण्डस्ट्रीज लि.,
प्लॉट नं. 41 42, इण्डस्ट्रीयल एरिया, बामोर,
जिला मुरैना - 476444 (मध्य प्रदेश)

महोदय,

1. कृपया अपने नवीनीकरण के संदर्भ में भेजे गए आवेदन पत्र दिनांक 18 06 2019 का अवलोकन करें। हमें यह जानकारी देते हुए प्रसन्नता है कि आपके प्रमाणन लाइसेंस का दिनांक 01/08/2019 से 31/07/2020 तक नवीकरण हो गया है।
 2. कृपया ध्यान दें कि यह लाइसेंस उपरोक्त लिखी अवधि के बाद समाप्त हो जाएगा, अंतः आपसे अनुरोध है कि आप अपना लाइसेंस नवीनीकरण कराने के लिए आवेदन पत्र, नवीकरण आवेदन शुल्क, वार्षिक शुल्क तथा मुहरांकन शुल्क के साथ अगले नवीकरण की तिथि से कम से कम एक मास पूर्व भेजें।
 3. लाइसेंस नवीनीकरण की पृष्ठांकन शीट संलग्न है। इसे कृपया आपके पास उपलब्ध मूल लाइसेंस के साथ जोड़ लें।
 4. आपको सलाह दी जाती है कि अपना उत्पादन कार्यक्रम अग्रिम रूप से इस कार्यालय को अवश्य सूचित करें।
- धन्यवाद

संलग्न : अनुलग्नक क्रमांक 07

भवदीय

11/8

प्रीति भटनागर
PRIITI BHATNAGAR
वैज्ञानिक-ई एवं प्रमुख
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARD
भोपाल Bhopal Branch Office

पता भोपाल शाखा कार्यालय/मानकलाया, ई-5 अरेरा कॉलोनी/बिटन
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लाइसेंस संख्या सी एम/एल - 8200019204 की संलग्नी
ATTACHMENT TO LICENCE NO. CM/L - 8200019204

सी एम/एल संख्या CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8200019204	M/s Vectus Industries Limited Plot No. 41,42 Industrial Area Banmorem Distt : Morena - 476444 (M.P.)	Polyethylene Pipes for Water Supplies	IS 4984 : 2016

पृष्ठांकन संख्या 07 दिनांक
ENDORSEMENT NO. 07 DATED

18/7/19

Whereas, the licence was valid upto 31 07 2019.

Now, consequent upon renewal, the validity of the licence given in endorsement No. 05 has been extended from First August Two Thousand and Nineteen to Thirty First July Two Thousand and Twenty.

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।
Other terms and conditions of Licence remain the same.


प्रीति भटनागर
PRITI BHATNAGAR
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भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

पता
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ई-5, अरेरा कालोनी, बिट्टन मार्केट, भोपाल 462 016, भारत
Commercial-cum-office Complex, E-5 Arera
Colony,
Bhopal-462016

दूरभाष Phones 0755-2423452, 2423449

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वेब web: http://www.bis.org.in

पंजीकृत पावती सूचना

हमारा संदर्भ : सी एम/एल - 8200017398

दिनांक - 09. 12 2005

विषय : आई एस 4985 : 2000 के अनुरूप भा मा ब्यूरो प्रमाणन मुहर लाइसेंस संख्या सी एम/एल - 8200017398
प्रदान करने के संबंध/संदर्भ में।

मेसर्स वेक्टस इण्डस्ट्रीज लि.युनिट II,
प्लांट नं. 41/42, इण्डस्ट्रीयल एरिया, बामोर,
जिला मुरेना 476444 (म.प्र.)

महोदय,

आपके आवेदन के संदर्भ में हम यह सहर्ष सूचित करते हैं कि आपको अपने निम्न उत्पाद पर मानक मुहर का उपयोग करने के लिए लाइसेंस जारी करने का निर्णय लिया गया है:

उत्पाद : Unplasticized PVC Pipes for Potable Water Supplies

Nominal size,mm	Class	Typy of Ends
90 ,110,125,160,180, 200,225 & 250	1	Plain end & Socketed end for Solvent Cement joining
63,75, 90, 110,125,160,180,200,225 & 250	2	Plain end & Socketed end for Solvent Cement joining
40,50,63,75, 90 , 110, 125,160,180 , 200,225 & 250	3	Plain end & Socketed end for Solvent Cement joining
20,32,40,50, 63,75, 90, 110,125,160,180,200,225 & 250	5	Plain end & Socketed end for Solvent Cement joining

आई. एस. : IS 4985 : 2000 (Amendment No. 4)

2. आपको यह लाइसेंस इस स्पष्ट शर्त पर दिया जा रहा है कि आप उक्त भारतीय मानक के अनुरूप खरा उतरने वाले समस्त/अधिकांश उत्पादन पर मानक मुहर लगाएँगे।

3.

आपको प्रदान किए गए लाइसेंस का नंबर सीएम/एल - 8200017398 है जो दिनांक -02 12 2015 से लागू है तथा दिनांक- 01 12 2016 तक वैध है। आप द्वारा किए जाने वाले पत्राचार में इस लाइसेंस नंबर का उल्लेख अवश्य किया जाना चाहिए।



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
भोपाल Bhopal Branch Office

पता: भोपाल शाखा कार्यालय/मानकलाया, ई-5 अरेरा कॉलोनी/बिटन
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Bitten Market-Bhopal/462016
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ई-मेल e-mail: bplbo@bis.org.in
वेब web: http://www.bis.org.in

लाइसेंस संख्या सी एम/एल - 8200017398 की संलग्नी
ATTACHMENT TO LICENCE NO. CM/L - 8200017398

सी एम/एल संख्या CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8200017398	मेसर्स वैक्टस इण्डस्ट्रीज लि. युनिट II, प्लॉट नं. 41 42, इण्डस्ट्रीयल एरिया, बामोर, जिला मुरैना - 476444 (मध्य प्रदेश)	Unplasticized PVC Pipes for Potable Water Supplies - Specification	IS 4985 : 2000
8200017398	M/s Vectus Industries Limited Unit II Plot No. 41/42, Industrial Area, Banmore, Distt : Morena Madhya Pradesh - 476444	Unplasticized PVC Pipes for Potable Water Supplies - Specification	IS 4985 : 2000

पृष्ठांकन संख्या 04 दिनांक
ENDORSEMENT NO. 04 DATED

18/7/19

Whereas, the licence was valid upto 30 06 2019.

Now, consequent upon renewal, the validity of the licence given in endorsement No. 03 has been extended from First July Two Thousand and Nineteen to Thirty June Two Thousand and Twenty.

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।

Other terms and conditions of Licence remain the same.


प्रीति भटनागर
PRITI BHATNAGAR
वैज्ञानिक-ई एवं प्रमुख
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

पता

Address:

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के सामने, ई-5, अरेरा कालोनी, बिड़न मार्केट,
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2442550

फैक्स Fax: 0755-2423451

ई-मेल e-: bpbo@bis.org.in, bpbo@bis.gov.in

वेब web : <http://www.bis.org.in>, www.manakonline.in

लाइसेंस संख्या सी एम/एल - 8492693 की संलग्नी

ATTACHMENT TO LICENCE NO. CM/L - 8492693

सी एम/एल संख्या CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8492693	मेसर्स वेक्टस इण्डस्ट्रीज लिमिटेड (यूनिट 1) प्लॉट नं 26 /27, इण्डस्ट्रियल एरिया बामोर, जिला : मुरैना मध्य प्रदेश	Rotational moulded polyethylene water storage tanks	IS 12701 : 1996
8492693	Vectus Industries Ltd (Unit - 1) Plot No. 26/27, Industrial Area, Banmore, Distt : Morena, Madhya Pradesh	Rotational moulded polyethylene water storage tanks	IS 12701 : 1996

पृष्ठांकन संख्या 19 दिनांक 7/6/2019
ENDORSEMENT NO. 19 DATED 7/6/2019

Whereas, the licence was valid upto 30/06/2019.

Now, Consequent upon renewal, the validity of the licence given in endorsement No 18 has been extended from First July Two Thousand Nineteen to Thirtieth June Two Thousand Twenty .

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।

Other terms and conditions of Licence remain the same.

(Signature)

प्रीति भटनागर
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वैज्ञानिक-ई एवं प्रमुख
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

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Commercial-cum-office Complex, E-5 Arera
Colony,
Bhopal-462016

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वेब web http://www.bis.org.in

पंजीकृत पावती सूचना

हमारा संदर्भ : सी एम/एल - 8200031998

दिनांक - 03.08
~~26.06~~ 2016

विषय : आई एस 12818 : 2010 के अनुरूप भा मा ब्यूरो प्रमाणन मुहर लाइसेंस संख्या सी एम/एल - 8200031988 प्रदान करने के संबंध/संदर्भ में।

मेसर्स वेक्टस इण्डस्ट्रीज लि. (यूनिट 2),
प्लॉट नं. 41/42, इण्डस्ट्रीयल एरिया, बामोर,
जिला मुरेना 476444 (म.प्र.)

महोदय,

आपके आवेदन के संदर्भ में हम यह सहर्ष सूचित करते हैं कि आपको अपने निम्न उत्पाद पर मानक मुहर का उपयोग करने के लिए लाइसेंस जारी करने का निर्णय लिया गया है:

उत्पाद : Unplasticized Polyvinyl Chloride (PVC-U) Screen and Casing Pipes for Bore/Tubewell

Designation	Nominal Dia. DN
CM	100, upto & including 200
CS	150 to 200

आई. एस. : IS 12818 : 2010

2. आपको यह लाइसेंस इस स्पष्ट शर्त पर दिया जा रहा है कि आप उक्त भारतीय मानक के अनुरूप खरा उतरने वाले समस्त/अधिकांश उत्पादन पर मानक मुहर लगाएँगे।

3. आपको प्रदान किए गए लाइसेंस का नंबर सीएम/एल - 8200031998 है जो दिनांक-17 06 2016 से लागू है तथा दिनांक- 16 06 2017 तक वैध है। आप द्वारा किए जाने वाले पत्राचार में इस लाइसेंस नंबर का उल्लेख अवश्य किया जाना चाहिए।

4. भा मा ब्यूरो (प्रमाणन) विनियम 1988 के विनियम 6 के उप विनियम (2) के अनुसार आप द्वारा 1000/- रु लाइसेंस शुल्क इस लाइसेंस की द्वितीय अनुसूची में उल्लिखित और आप द्वारा अपने पत्र दिनांक- 18/06/2016 द्वारा सहमत रुपये- 39200.00 मुहरांकन शुल्क का भुगतान लाइसेंस की वैधता अवधि के लिए दिनांक- 17 06 2016 से किया जाना है। सेवा कर, जैसा उपयुक्त हो , देय होगा



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

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लाइसेंस संख्या सी एम/एल - 8200031998 की संलग्नी

ATTACHMENT TO LICENCE NO. CM/L - 8200031998

सी एम/एल संख्या CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8200031998	मेसर्स वैक्टस इण्डस्ट्रीज लि. युनिट II, प्लॉट नं. 41 42, इण्डस्ट्रीयल एरिया, बामोर, जिला मुरैना - 476444 (मध्य प्रदेश)	unplasticized PVC screen and casing pipes for bore/tubewell	IS 12818 : 2010
8200031998	M/s Vectus Industries Limited Unit II Plot No. 41/42, Industrial Area, Banmore, Distt : Morena Madhya Pradesh - 476444	unplasticized PVC screen and casing pipes for bore/tubewell	IS 12818 : 2010

पृष्ठांकन संख्या 04 दिनांक
ENDORSEMENT NO. 04 DATED

24/7/19

Whereas, the licence was valid up to 30 06 2019.

Now, consequent upon renewal, the validity of the licence given in endorsement No. 03 has been extended from First July Two Thousand and Nineteen to Thirtieth June Two Thousand and Twenty.

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।

Other terms and conditions of Licence remain the same.

प्रीति भटनागर
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भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

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लाइसेंस संख्या सी एम/एल - 8200017297 की संलग्नी

ATTACHMENT TO LICENCE NO. CM/L - 8200017297

सी एम/एल संख्या CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8200017297	मेसर्स वेक्टस इण्डस्ट्रीज लि., यूनिट II, प्लॉट नं. 41/42, इण्डस्ट्रीयल एरिया, बामोर, जिला मुरेना - 476444 (म.प्र.)	PVC-U pipes for soil and waste discharge systems for inside and outside buildings including ventilation and rainwater system	IS 13592 : 2013
8200017297	M/s Vectus Industries Limited Unit II Plot No.41/42, Industrial Area, Banmore, Distt : Morena - 476444 Madhya Pradesh	PVC-U pipes for soil and waste discharge systems for inside and outside buildings including ventilation and rainwater system	IS 13592 : 2013

पृष्ठांकन संख्या 03 दिनांक 11/7/19
ENDORSEMENT NO. 03 DATED

Whereas, the licence was valid upto 30 06 2019.

Now, consequent upon renewal, the validity of the licence given in endorsement No. 02 has been extended from First July Two Thousand and Nineteen to Thirty June Two Thousand and Twenty.

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।

Other terms and conditions of Licence remain the same.

प्रीति भटनागर
PRIITI BHATNAGAR
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भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standards, Bhopal



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

Address: सी-43, सेक्टर 1, डिफेंस कालोनी
देहरादून-248001 (उत्तराखंड)
C-43, Sector 1, Defence Colony
Dehradun-248001 (Uttarakhand)
0135-2665129
Tel- 0135-2665272
FaxNo. dhbo@mail.gov.in
Email: <http://www.bis.org.in>
Web:

REGISTERED/E Mail

Our Ref : DHBO/L- 3130836

Dated: 11 February 2019

Subject : Permission for Resumption of Marking

To,
M/s Vectus Industries
Plot No 26 & 57
Sector 2, IIE SIDCUL
Haridwar-249402

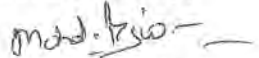
Dear Sir,

This has reference to BIS Certification Marks licence No. CM/L- 3130836 held by you for use of Standard Mark on the product as per IS 15450 : 2004 which is valid upto 2019-07-31 and was under stop marking w.e.f 05-12-2018.

In view of **Verification of New premises and passing of the offered sample in factory testing on 31-01-2019**, it has been decided to permit you to resume marking with effect from **05-02-2019**. You are, therefore, permitted to mark and dispatch the material mentioned above after ensuring its conformity to the requirements of relevant Indian Standard Specification and testing as per the Scheme of Testing and Inspection (STI) given to you. You are also advised to send us your production schedule well in advance along with list of consignees regularly.

Thanking you

Your's faithfully,


Mohammad Rizwan
Sc. C-DHBO



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

Address: सी-43, सेक्टर 1, डिफेंसकालोनी
देहरादून-248001 (उत्तराखंड)
C-43, Sector 1, Defence Colony
Dehradun-248001 (Uttarakhand)
Tel- 0135-2665129
FaxNo. 0135-2665272
Email: dhbo@mail.gov.in
Web: <http://www.bis.org.in>

अनुज्ञप्ति संख्यासी एम् / एल-3130836 का संलग्नक
Attachment to Licence No. CM/L- 3130836

सी एम्/ एल संख्या CM/L- No	लाइसेंसधारी का पता सहित नाम Name of the Licensee with the Factory Address	उत्पाद का नाम Name of the Product	भारतीय मानक संख्या Indian Standard No.
3130836	M/s. Vectus Industries Ltd., Plot No.41-42, Industrial Area, Banmore Distt: Morena Madhya Pradesh - 476444	Polyethylene/Aluminium/Polyethylene Composite Pressure Pipes for Hot and Cold Water Supply	IS 15450 : 2004

पृष्ठांकनसंख्या 8 दिनांक
Endorsement No.8 Dated

11/2/2019

फैक्ट्री के स्थानांतरण के परिणामस्वरूप, दिनांक पांच फरवरी दो हजार उन्नीस से लाइसेंस में उल्लिखित लाइसेंसधारी का पता बदल कर निम्नलिखित कर दिया गया है।

Consequent to the shifting of the factory, the address of the licensee mentioned in the Licence has been changed to as following with effect from Fifth February Two Thousand Nineteen.

M/s. Vectus Industries Ltd.,
Plot No.26 & 57, Sector 2,
IIE, SIDCUL,
Haridwar - 249402

अनुज्ञप्ति की अन्य शर्तें सामान रहेंगी।

Other terms and conditions of licence remain same.

पदभिहित प्राधिकारी के हस्ताक्षर

अनिलेश एम डेविड
वैज्ञानिक-एफ एवं प्रमुख
(देहरादून शाखा कार्यालय)



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

Address: UCF Sadan, Ground Floor,
Block- D, Deep Nagar Road,
Vishnu Vihar,
Dehradun - 248001

Phones : 0135-2665129

E-Mail: dhbo@bis.gov.in

Web: <http://www.bis.org.in>

GST No. 05AAATB0431G1ZH

अनुज्ञप्ति संख्यासी एम् / एल- 3130836 का संलग्नक

Attachment to Licence No. CM/L- 3130836

सी एम्/ एल संख्या CM/L-No	लाइसेंसधारी का पता सहित नाम Name of the Licensee with the Factory Address	उत्पाद का नाम Name of the Product	भारतीय मानक संख्या Indian Standard No.
3130836	M/s. Vectus Industries Ltd., Plot No. 26 & 57, Sector 2, IIE, SIDCUL, Haridwar, Distt : Haridwar, Uttarakhand- 249402	Polyethylene/ Aluminium/ Polyethylene Composite Pressure Pipes for Hot and Cold Water Supplies	IS 15450 : 2004

पृष्ठांकनसंख्या 12 दिनांक
Endorsement No. 12 Dated

अनुज्ञप्ति 31 जुलाई 2019 तक मान्य था।

Whereas, the licence was valid up to Thirty First July Two Thousand Nineteen,

अब, नवीनीकरण के परिणामस्वरूप, अनुमोदन संख्या 10 में दिए गए अनुज्ञप्ति की वैधता 01 अगस्त 2019 से 31 जुलाई 2020 तक बढ़ा दी गयी है।

Now, consequent upon renewal, the validity of the licence given in the Endorsement No.10 has been extended from First August Two Thousand Nineteen to Thirty First July Two Thousand Twenty.

अनुज्ञप्ति की अन्य शर्तें सामान्य रहेंगी।

Other terms and conditions of licence remain same.

पदभिहित प्राधिकारी के हस्ताक्षर

(सुधीर बिश्नोई)

वैज्ञानिक- ई



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

Address: UCF Sadan, Ground Floor,
Block- D, Deep Nagar Road,
Vishnu Vihar,
Dehradun - 248001
Phones : 7617777270, 7617777278
E-Mail: dhbo@bis.gov.in
Web: <http://www.bis.org.in>
GST No. 05AAATB0431G1ZH

पंजीकृत/पावती

हमारा संदर्भ: DHBO/CML- 3271046

दिनांक: 16 JAN 2020

विषय: प्रमाणन मुहरांकन संख्या सीएम/एल- 3271046 का नवीकरण

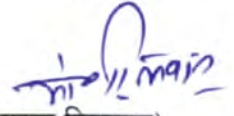
M/s. Vectus Industries Limited,
Plot No. 412-414, Shri Developers,
Industrial Estate Mahukheraganj, Kashipur,
Distt- Udham Singh Nagar,
Uttarakhand- 244713

भवदीय,

1. कृपया अपने ऑनलाइन नवीकरण आवेदन का अवलोकन करें। हमें यह जानकारी देते हुए प्रसन्नता है कि आपके प्रमाणन लायसेंस का दिनांक 01-02-2020 से 31-01-2021 तक नवीकरण हो गया है।
2. कृपया ध्यान दें कि यह लायसेंस उपरोक्त लिखित अवधि के बाद समाप्त हो जाएगा। अतः आपसे अनुरोध है कि आप अपना लायसेंस नवीकरण कराने के लिए आवेदन शुल्क, वार्षिक शुल्क तथा मुहरांकन शुल्क के साथ अगले नवीकरण की तिथि से कम से कम एक मास पूर्व ऑनलाइन आवेदन करें।
3. लायसेंस नवीनीकरण के संदर्भ में पृष्ठांकन शीट क्रमांक 09 संलग्न है। इसे कृपया अपने पास उपलब्ध मूल लायसेंस के साथ जोड़ लें।

धन्यवाद

भवदीय,


(मोहम्मद रिज़वान)
वैज्ञानिक- सी

संलग्न: यथोक्त



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

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Dehradun - 248001

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E-Mail: dhbo@bis.gov.in

Web: <http://www.bis.org.in>

GST No. 05AAATB0431G1ZH

अनुज्ञप्ति संख्यासी एम् / एल- 3271046 का संलग्नक
Attachment to Licence No. CM/L- 3271046

सी एम्/ एल संख्या CM/L-No	लाइसेंसधारी का पता सहित नाम Name of the Licensee with the Factory Address	उत्पाद का नाम Name of the Product	भारतीय मानक संख्या Indian Standard No.
3271046	M/s. Vectus Industries Limited, Plot No. 412-414, Shri Developers, Industrial Estate Mahukheraganj, Kashipur, Distt Udham Singh Nagar, Uttarakhand- 244713	Chlorinated polyvinyl chloride (CPVC) pipes for potable hot and cold water distribution supplies	IS 15778 : 2007

पृष्ठांकनसंख्या 09 दिनांक
Endorsement No 09 Dated 14.01.2020

अनुज्ञप्ति 31 जनवरी 2020 तक मान्य था।

Whereas, the licence was valid upto Thirty First January Two Thousand Twenty.

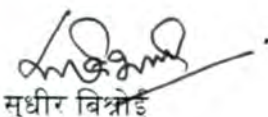
अब, नवीनीकरण के परिणामस्वरूप, अनुमोदन संख्या 08 में दिए गए अनुज्ञप्ति की वैधता 01 फरवरी 2020 से 31 जनवरी 2021 तक बढ़ा दी गयी है।

Now, consequent upon renewal, the validity of the licence given in the Endorsement No 08 has been extended from First February Two Thousand Twenty to Thirty First January Two Thousand Twenty One .

अनुज्ञप्ति की अन्य शर्तें सामान्य रहेंगी।

Other terms and conditions of licence remain same.

पदभिहित प्राधिकारी के हस्ताक्षर



मुधीर विश्वादे

वैज्ञानिक- ई एवं प्रमुख
(देहरादून शाखा कार्यालय)



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

Address: सी-43, सेक्टर 1, डिफेंस कालोनी
देहरादून- 248001 (उत्तराखण्ड)
C-43, Sector 1, Defence Colony
Dehradun-248001 (Uttarakhand)

Tel-FaxNo. 0135-2665272
Email: bisdbo@gmail.com
Web: <http://www.bis.org.in>

पंजीकृत

हमारा संदर्भ : सीएम/एल- 3048952

08/09/2009

विषय : आई एस 15801:2008 के अनुरूप भा.मा. ब्यूरो प्रमाणन मुहर लाइसेंस संख्या
सीएम/एल- 3048952 प्रदान करने के सम्बन्ध/संदर्भ में

मैसर्स वैक्टस इण्डस्ट्रीज लिमिटेड
प्लॉट नं. 26, सेक्टर-2, सिडकुल,
हरिद्वार (उत्तराखण्ड),

महोदय,

आपके आवेदन के संदर्भ में हम यह सहर्ष सूचित करते हैं कि आपको अपने निम्न उत्पाद पर मानक मुहर का उपयोग करने के लिए लाइसेंस जारी करने का निर्णय लिया गया है :

उत्पाद : Polypropylene-Random Copolymer Pipes for hot and cold water supplies as per IS 15801:2008 using resin as per designation PP-R-P-H-N-10-35-003 for the following varieties:

- i) SDR-11, Size 50 – 160 mm
- ii) SDR-7.4, Size 50 – 110 mm
- iii) SDR-6, Size 20 – 40 mm

आई एस : 15801:2008

2. आपको यह लाइसेंस इस स्पष्ट शर्त पर दिया जा रहा है कि आप उक्त भारतीय मानक के अनुरूप खरा उतरने वाले समस्त/अधिकांश उत्पादन पर मानक मुहर लगाएंगे ।

3. आपको प्रदान किए गए लाइसेंस का नंबर सीएम/एल- 3048952 है, जो दिनांक 07/09/2009 से लागू है तथा दिनांक 06/09/2010 तक वैध है । आप द्वारा किए जाने वाले पत्राचार में इस लाइसेंस नंबर का उल्लेख अवश्य किया जाना चाहिए ।

4. भा.मा. ब्यूरो (प्रमाणन) विनियम, 1988 के विनियम 6 के उप विनियम (2) के अनुसार आप द्वारा 1000/- रु. लाइसेंस शुल्क इस लाइसेंस की द्वितीय अनुसूची में उल्लिखित और आप द्वारा अपने पत्र दिनांक 23/03/2009 द्वारा सहमत रु. 125200.00 मुहरांकन शुल्क का भुगतान लाइसेंस की वैधता अवधि के लिए दिनांक 06/09/2010 से किया जाना है ।



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय
DEHRADUN BRANCH OFFICE

Address: UCF Sadan, Ground Floor,
Block- D, Deep Nagar Road,
Vishnu Vihar,
Dehradun - 248001

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Web: <http://www.bis.org.in>

GST No. 05AAATB0431G1ZH

अनुज्ञप्ति संख्यासी एम् / एल- 3048952 का संलग्नक
Attachment to Licence No. CM/L- 3048952

सी एम्/ एल संख्या CM/L-No	लाइसेंसधारी का पता सहित नाम Name of the Licensee with the Factory Address	उत्पाद का नाम Name of the Product	भारतीय मानक संख्या Indian Standard No.
3048952	M/s. Vectus Industries Ltd., Plot No. 26 & 57, Sector 2, IIE, SIDCUL, Distt- Haridwar, Uttarakhand- 249403	Polypropylene-random copolymer pipes for hot and cold water supplies	IS 15801 : 2008

पृष्ठांकन संख्या 14 दिनांक
Endorsement No. 14 Dated 06.02.2020

अनुज्ञप्ति 31 जनवरी 2020 तक मान्य था।

Whereas, the licence was valid upto Thirty First January Two Thousand Twenty,

अब, नवीनीकरण के परिणामस्वरूप, अनुमोदन संख्या 13 में दिए गए अनुज्ञप्ति की वैधता 01 फरवरी 2020 से 31 जनवरी 2021 तक बढ़ा दी गयी है।

Now, consequent upon renewal, the validity of the licence given in the Endorsement No 13 has been extended from First February Two Thousand Twenty to Thirty First January Two Thousand Twenty One.

अनुज्ञप्ति की अन्य शर्तें सामान्य रहेंगी।

Other terms and conditions of licence remain same.

पदभिहित प्राधिकारी के हस्ताक्षर

सुधीर बिश्री

वैज्ञानिक- ई एवं प्रमुख
(देहरादून शाखा कार्यालय)



भारतीय मानक ब्यूरो
Bureau of Indian Standards
The National Standards Body of India

Address: Dehradun Branch Office- UCF Sadan,
Block-D, Ground Floor, Deep Nagar
Road, Vishnu Vihar, Dehradun,
Uttarakhand-248001

Phone: 0135-2665129, 2665272

Fax: 01352665272

E-Mail: dhbo@bis.gov.in

Web: www.bis.org.in, www.manakonline.in

Our Ref : DHBO/CM/L- 8300133310

Date: 24 SEP 2019

Subject: Grant of BIS Certification Marks Licence No. 8300133310 as per IS 15328 : 2003.

M/s. Vectus Industries Limited,
Plot-26 & 57, Sector-2, IIE, SIDCUL,
Distt: Haridwar,
Uttarakhand- 249403

Dear Madams(s)/Sir,

With reference to your application, we are pleased to inform you that the Certification Marks Licence has been granted to you to use the Standard Mark in respect of the followings:

Product:- Unplasticized Non-Pressure Polyvinyl Chloride (PVC -U) Pipes for use in Underground Drainage and Sewerage Systems -

Grade/Class/Type/Variety
SN-8/SDR-34/63 mm to 250 mm, Plain and Elastomeric sealing ring joints
SN-4/SDR-41/125 mm to 250 mm, Plain and Elastomeric sealing ring joints
SN-2/SDR-51/160 mm to 250 mm, Plain and Elastomeric sealing ring joints

As per IS 15328 : 2003.

1. The licence is granted on the explicit condition that you will mark entire/substantial production which conforms to the Indian Standards.
2. The number assigned to this licence is CM/L- 8300133310 which has been made operative from 13-09-2019 and is valid upto 12-09-2020. The licence number should invariably be referred to in your future correspondence.

According to sub-regulation (1) & (3) of Paragraph 5 of scheme I of Schedule II under Bureau of Indian Standards (Conformity of Assessment) Regulation, 2018, the annual licence fee of Rs. 1000.00 and the marking fee for use of standard mark as per Annexure-I of Scheme I of BIS (Conformity assessment) Regulation 2018 is payable by you with effect from 13-09-2019 for the period of validity of the licence licence in advance.

3. Minimum marking fee stipulated in Annexure -I of scheme I of BIS (Conformity Assessment) Regulation 2018 is payable by you regardless of the whether you actually mark your product or not with the Standard Mark. Our Receipt No. 0083PC2019000618 dated 13-09-2019 for the licence fee and the minimum marking fee for the first operative period is already issued.

4. This advance minimum marking fee will be carried over to the next year on every renewal. The actual marking fee calculated on the unit rate on the production marked or the minimum marking fee, whichever is higher shall be payable by you at the time of renewal.

5. With a view to streamlining the reporting of quantity marked, calculation and collection of marking fee on the unit rate basis, fees will be calculated on the production marked during the first nine months of operation of the licence at the time of first renewal, and on the production marked during twelve months comprising the last three months of the previous operative year and the first nine months of the current operative year, at the time of the second and subsequent renewals. In case the licence expires, the entire production marked till the expiry date shall be taken into account for calculating the marking fee payable.

6. The Scheme of Inspection and Testing as specified by BIS will have to be implemented by your organization strictly and completely. This supervision of the operation of the Scheme shall be done by a person responsible for the quality control function in your organization. Kindly inform us the name and designation of the person who will be held responsible for the operation and maintenance of the Scheme. Any future change in this respect will have to be communicated by you to us as and when these take place.

7. We are enclosing a sheet giving the preferred dimensions of the Standard Mark to enable you to prepare the designs of the Standard Mark for marking the above product Photographic reduction in any size is permissible. This will ensure the relative proportions of the different dimensions maintained. Preferred dimensions be used as far as possible.

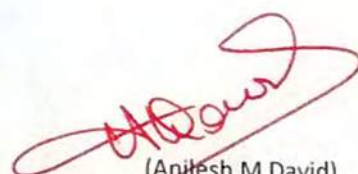
8. On commencement of marking of your product for which you are licensed, you may advertise your product with Standard Mark in various media only during the validity of your licence. The use of Standard Mark on letterheads and publicity literature will be permitted only on receipt of your assurance that in the event of cancellation or lapsing of your licence, the Standard Mark on your letterheads, publicity literatures etc. will be destroyed/obliterated.

9. This licence is granted for your factory situated at "Plot-26 & 57, Sector-2, IIE, SIDCUL, Distt: Haridwar, Uttarakhand- 249403". Privileges under the licence shall not be exercised by any other firm company/factory etc. This licence is not transferable in the event of shifting the manufacturing and testing equipment from the licensed premises to some other place, use of Standard Mark shall be stopped till the new premises are inspected and found to be satisfactory by us in respect of manufacturing and testing facilities available there and the address of the new premises is endorsed in the licence.

10. It may be noted that this licence is granted under option 2 which is subject to the condition that if samples drawn on (23-08-2019) by BIS during the verification visit before grant of licence, fail to conform to the requirements of relevant Indian Standard (in any requirement), the licence shall be put under suspension, and in case fresh sample after corrective action is not offered within one month or fresh sample fails to conform to the requirement of relevant Indian Standard, in any requirement, the licence shall be processed for cancellation.

11. The licence document in original is enclosed.

Thanking You,


(Anil M David)
SCIENTIST-F & HEAD



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय

DEHRADUN BRANCH OFFICE

Address: UCF Sadan, Ground Floor,
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Web: <http://www.bis.org.in>

GST No. 05AAATB0431G1ZH

पंजीकृत/पावती

हमारा संदर्भ: DHBO/CML- 8300133310

दिनांक:

विषय: प्रमाणन मुहरांकन संख्या सीएम/एल- 8300133310 के इंकलूजन संदर्भ में।

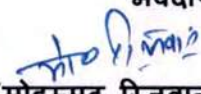
3 MAR 2020

M/S. Vectus Industries Limited,
Plot-26 & 57, Sector-2 IIE SIDCUL,
Distt: Haridwar,
Uttarakhand- 249403

महोदय,

1. इंकलूजन के संदर्भ में पृष्ठांकन शीट क्रमांक - 01 संलग्न है। इसे कृपया अपने पास उपलब्ध मूल लायसेंस के साथ जोड़ ले।

धन्यवाद

भवदीय,

(मोहम्मद रिज़वान)
वैज्ञानिक- सी

संलग्न यथोक्त:



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

देहरादून शाखा कार्यालय

DEHRADUN BRANCH OFFICE

Address: UCF Sadan, Ground Floor,
Block- D, Deep Nagar Road,
Vishnu Vihar,
Dehradun - 248001

Phones : 7617777270, 7617777278

E-Mail: dhbo@bis.gov.in

Web: http://www.bis.org.in

GST No. 05AAATB0431G1ZH

अनुज्ञप्ति संख्यासी एम् / एल-8300133310 का संलग्नक

Attachment to Licence No. CM/L- 8300133310

सी एम्/ एल संख्या CM/L-No	लाइसेंसधारी का पता सहित नाम Name of the Licensee with the Factory Address	उत्पाद का नाम Name of the Product	भारतीय मानक संख्या Indian Standard No.
8300133310	M/S. Vectus Industries Limited, Plot-26 & 57, Sector-2 IIE SIDCUL, Distt: Haridwar, Uttarakhand- 249403	Unplasticized Non-Pressure Polyvinyl Chloride (PVC -U) Pipes for use in Underground Drainage and Sewerage Systems	IS 15328 : 2003

पृष्ठांकन संख्या 01 दिनांक

Endorsement No. 01 Dated 02.03.2020

ब्यूरो द्वारा दिनांक 02-03-2020 से अनुज्ञप्ति के स्कोप में निम्नलिखित को जोड़ने का अनुमोदन किया गया है।

The following addition in the scope of licence has been approved by the Bureau with effect from Second March Two Thousand Twenty.

- SN-8/SDR-34/63 mm to 200 mm, Solvent Cement Joint,
- SN-4/SDR-41/125 mm to 200 mm, Solvent Cement Joint,
- SN-2/SDR-51/160 mm to 200 mm, Solvent Cement Joint,
- SN-8/SDR-34/315 mm, Plain and Elastomeric Sealing Ring Joint,
- SN-4/SDR-41/315 mm, Plain and Elastomeric Sealing Ring Joint,
- SN-2/SDR-51/315 mm, Plain and Elastomeric Sealing Ring Joint,

अनुज्ञप्ति की अन्य शर्तें सामान रहेंगी।

Other terms and conditions of licence remain same.

पदभिहित प्राधिकारी के हस्ताक्षर


सुधीर बिश्नोई

**वैज्ञानिक- ई एवं प्रमुख
(देहरादून शाखा कार्यालय)**



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

पता ई-5, अरेरा कॉलोनी, बिटन मार्केट, भोपाल -
Address: 462016 Commercial-cum-office Complex, E-5
Arera Colony, Bhopal-462016

दूरभाष Phones 0755-2423452, 2423449

फैक्स Fax: 0755-2423451

ई-मेल e-mail: bpbo@bis.gov.in, bpbo@bis.org.in

वेब web: <http://www.bis.org.in>, www.manakonline.in

पजीकृत/पावती

हमारा संदर्भ : BPLBO/L- 8200090606

दिनांक - 11/2/2020

विषय : प्रमाणन मुहर लाइसेंस संख्या सी एम/एल - 8200090606 का नवीकरण
आई एस - 14333 : 1996

मेसर्स वैक्टस इण्डस्ट्रीज लिमिटेड यूनिट - II,
प्लांट नं. 41,42, इण्डस्ट्रीयल एरिया,
बामोर, जिला मुरैना - 476444 (मध्य प्रदेश)

महोदय,

1. कृपया अपने नवीनीकरण के संदर्भ में भेजे गए आवेदन पत्र दिनांक 06 01 2020 का अवलोकन करें। हमें यह जानकारी देते हुए प्रसन्नता है कि आपके प्रमाणन लाइसेंस का दिनांक 01/03/2020 से 28/02/2021 तक नवीकरण हो गया है।
2. कृपया ध्यान दें कि यह लाइसेंस उपरोक्त लिखी अवधि के बाद समाप्त हो जाएगा, अतः आपसे अनुरोध है कि आप अपना लाइसेंस नवीनीकरण कराने के लिए आवेदन पत्र, नवीकरण आवेदन शुल्क, वार्षिक शुल्क तथा मुहरांकन शुल्क के साथ अगले नवीकरण की तिथि से कम से कम एक मास पूर्व भेजें।
3. लाइसेंस नवीनीकरण की पृष्ठांकन शीट संलग्न है। इसे कृपया आपके पास उपलब्ध मूल लाइसेंस के साथ जोड़ लें।
4. आपको सलाह दी जाती है कि अपना उत्पादन कार्यक्रम अग्रिम रूप से इस कार्यालय को अवश्य सूचित करें।

धन्यवाद

भवदीय

संलग्न : अनुलग्नक क्रमांक 01

प्रीति शर्मा
PRIYI SHARMA
वैज्ञानिक एवं एवं प्रमुख
Scientist F & Head
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standard, Bhopal

व्यवसायिक एवं कार्यालय परिसर, दशहरा मैदान के सामने



भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

भोपाल Bhopal Branch Office

पता

Address:

भोपाल शाखा कार्यालय/मानकलाया,ई-5,
अरेरा कॉलोनी/बिटन मार्केट/भोपाल - 462016
Mankaiaya, E-5 Arera Colony
Bitten Market-Bhopal|462016

दूरभाष Phones :0755-2423449, 2423452, 2423454

फैक्स Fax: 0755-2423451

ई-मेल e-mail: bpbo@bis.gov.in, bplbo@bis.org.in

वेब web : <http://www.bis.org.in>, www.manakonline.in

लाइसेंस संख्या सी एम/एल - 8200090606 की संलग्नी

ATTACHMENT TO LICENCE NO. CM/L - 8200090606

सी एम/एल संख्या CML/NO	लाइसेंसधारी का पता सहित नाम NAME OF THE LICENSEE WITH THE ADDRESS	उत्पाद का नाम NAME OF THE PRODUCT	भा मा संख्या IS NO.
8200090606	वैक्टस इण्डस्ट्रीज लिमिटेड यूनिट - II, प्लॉट नं. 41,42, इण्डस्ट्रीयल एरिया, बामोर, जिला मुरैना - 476444 (मध्य प्रदेश)	High Density Polyethylene Pipe for Sewerage	IS 14333 : 1996
8200090606	Vectus Industries Limited Unit - II. Plot No.41,42,Industrial Area,Banmore, Dist. Morena – 476444 Madhya Pradesh.	High Density Polyethylene Pipe for Sewerage	IS 14333 : 1996

पृष्ठांकन संख्या 01 दिनांक
ENDORSEMENT NO. 01 DATED

11/2/2020

Whereas, the licence was valid upto 29 02 2020.

Now, consequent upon renewal, the validity of the licence given in first schedule of the original licence has been extended from First March Two Thousand and Twenty to Twenty Eight February Two Thousand and Twentyone.

लाइसेंस की अन्य निबन्धन व शर्तें यथावत हैं।

Other terms and conditions of Licence remain the same.

प्रति भटनगर
PRITI BHATNAGAR
वैज्ञानिक एवं प्रमुख
Scientist F & Head
भारतीय मानक ब्यूरो, भोपाल
Bureau of Indian Standard, Bhopal



LIST OF APPROVED MATERIALS (CIVIL)

Note :

1. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature or in the particular specifications or in the list of approved materials attached in the tender, shall be used in the work.
2. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material/ Brand/ Make.
3. Whenever the specified brand of material is not available than, the Engineer-in-charge may approve any material equivalent to that specified subject to proof being offered by the Contractor for its equivalence and its non-availability to his satisfaction.

MATERIALS:**BRAND/MAKE**

1	AAC Block	Aerocon, Siporex, Ultratech, Ecolite
2	AAC Block Adhesive	Ferrous crete(Ferro-1188), ARDEX ENDURA (White Star), Ultratech (Fixed-Block)
3	Acrylic Distemper, Emulsion, Synthetic Enamel Paint and Primer.	Asian Paints, ICI Dulux, Berger, Nerolac
4	Epoxy Adhesive	FOSROC, Aquomix , Choksey, BAL-ENDURA
5	Aluminium Composite Panel	Alpolic, Aluco Bond, Reynobond, Euro bond, Alstrong
6	Aluminium Extrusions	Hindalco, Indalco, Jindal
7	Aluminum Sections	Jindal, Hindalco, Indalco
8	Annealed Float Glass	Saint Gobain, Modi Guard, Asahi
9	Bitumen	Indian Oil, Hindustan Petroleum, Bharat Petroleum
10	Calcium Silicate Board / Tiles	Aerolite, Hilux, Starpan
11	CC Pavers	Nitco, Bharat Regency, Hindustan, Ultra, KJS Concrete, Duracrete, Dalal Tiles
12	Centrifugally Cast Iron Pipe & Fittings	NECO, SKF, BIC, RIF, KAPILANSH, HIF
13	Ceramic Tiles	Kajaria, Somany, Nitco, Orient Bell, Johnson
14	Chequered / Tactile Tiles	Dura, Unistone, Eurocon, Modern
15	CI Manhole Cover	BIC, SKF, NICO, Hepco, Kapilansh, RIF
16	CI Double flanged non-return valves	Kirloskar, Sant, Kartar
17	CP fittings	Jaquar, Parryware, Grohe, Kohler, Somany, Hindware, Marc, Roca
18	CPVC Pipes & Fittings (For Hot & Cold)	Astral Flowguard, Ashirvad, Prince, Supreme, Finolex, VECTUS
19	Curtain Carrier / Drapery Rod	Marvel, Vista levlor, Johnson.
20	Dash fastener, Expansion Bolt	Hilti, Bosch Fischer
21	Hydraulic Door closer, Floor springs	Dorma, Hardwyn, Hettich, Hafele
22	Ductile Iron Pipe (Water Supply)	Electro steel, Kesso, KDUPL, Electro Spun
23	EPDM Gasket	Hanu, Anand, Lescuyer
24	GRC Tile	Unistone, Eurocon, Dazzle
25	Epoxy Grouting Compound	Pidilite, Ferrous Crete(Ferro-102), MYK, LATICRETE
26	Epoxy Primer & Paints	Berger, Pidilite, CICO, BASF, SIKA
27	Fire Check door	Navair, Godrej, Shakti
28	Float Glass Mirror	Modi Float, Saint Gobain, Asahi
29	Flush Doors (ISI Mark only)	Century, Kitlam, Archid, A-1 Teak Products – Indore, Greenply
30	Friction Stay	Earl-Bihari, Ebco, Hettich
31	Galvanized/Stainless Steel Anchor Fasteners	Shakti, Arrow, Hilti, Fischer
32	Grass Pavers	Unistone, Ultra, Hindustan, KK, KJS Concrete
33	GI Pipe & fittings	Tata, Zenith, Jindal, Prakash Surya, Swastik
34	GI Sheet	Sail, TATA or equivalent
35	Gun Metal Gate Valve	Zoloto, Leader, AUDCO, SANT
36	Glass Mosaic Tile	Bisazza, Italia, Palladio, Mridul

MATERIALS:		BRAND/MAKE
37	Gypsum Board (False Ceiling)	Boral Gypsum, India Gypsum, St. Gobain
38	Hardener	Hardcrete of Snowcem India, Pidilite, CICO.
39	HDPE Pipes	VECTUS, Emco, Polyfins, Pioneer, Plyfab
40	Jet Assembly for EWC/Health Faucet	Parryware, Jaquar, Grohe, Kohler, Marc
41	Kitchen loft tank	Sintex, Tirupati Structural Ltd, KMS Plast world P.Ltd. Planet Plastics, Sri Kamakshi Traders, Sreyah Novel InC.
42	Laminate and Veneers	Merino, Greenlam, Formica, Kitlam, Durian, Ventura
43	Locks / Latch	Godrej, Harrision, Plaza, Dorma, Yale
44	Marine Plywood / BWP Ply	Duro, Century, Greenlam
45	Melamine Polish	Asian Paints, Pidilite, ICI Dulux, Burger
46	Metal False Ceiling	Nitobond, Armstrong, Trac, Durlum, Lafarge, Anutone
47	Mineral Fibre Ceiling	Armstrong, Nitobond, Daiken, Hunter Douglas, Anutone
48	M.S. Pipe (Railing)	Jindal, Tata, RINL, Prakash Surya
49	Multicoat Synthetic Plaster/ Textured Exterior wall paint	Spectrum, Heritage, Ultratech
50	Paver Blocks	Nitco, Kajaria, Johnson, Super
51	Plywood,	Greenply, Century, Duro
52	Polycarbonate Sheet	Danpalon, Bayer, Skyarch, Macrolux
53	Polysulphide / Silicon Sealent	Pidilite, Fosroc, Tuffseal, Chouksey Chemicals
54	POP (Plaster of paris)	JK, Laxmi, Sriram Nirman, Sakarni
55	PPR Pipes	SFMC, SAFE, Poiner Industries
56	Precast CC interlocking Tiles	Hindustan, Paver India, KK
57	Precoatd Profile Sheet	Tata, Bhushan or equivalent
58	Pre-laminated Particle Board	Ecoboard, Action-Tesa, Duro, Century Ply.
59	PTMT Fittings	Prayag, Polytuf, Pearl, Millennium
60	PVC Cistern	Steelbird, Jindal, Seabird, Prayag
61	PVC Connection Pipe	Supreme, Prince, Finolex
62	PVC Rain Water Pipe & Fitting	Finolax, Kisan, Kasta, Supreme, Astral, Prince
63	Ready Mix Concrete (RMC)	Lafarge, Alchon, ACC, L&T, Grasim, Ultratech
64	PVC Shutter	Rajshri, Sintex Polygreen
65	PVC Water storage Tank (Only ISI)	VECTUS, Water well, Plasto, Polycon, Sintex
66	Sluice Valve	Kirloskar, Venus, Kalpana, SANT, KARTAR
67	Solid PVC frames and shutters	Polygreen, Rajshri, Plastogreen
68	Stainless Steel	Jindal, Salem or equivalent
69	Stainless steel Sink with or without Draining board.	Nirali, Hindware, Frankee, Neelkanth, Jaquar
70	Stainless steel Door/Window fittings & Fixtures	Dorma, Ozone, D.Line, Hettich, Kich
71	Structural steel section	TATA, SAIL, RINL, Jindal
72	Super plasticizer / admixture	Sika, Fosroc, Chouksey Chemicals, BASF
73	Tensile Fabric	Bluestone, Encon, Structure Flex
74	Tile Adhesive	Ferrous Crete(Ferro-1122), Ardex Endura (Gold Star), PIDILITE (Fevimate XL), WEABR(Saint-Gobin) Sika, Thermoshield, Vamorganic, Somany
75	Towel Ring/Towel Rod/Towel Rack	Mare, Jaquar, Grohe, Kohler
76	UPVC Pipes & Fittings	Astral Flowguard, Ashirvad, Prince, Supreme, Finolex, VECTUS
77	Vitreous China Sanitary ware, Fittings & Fixtures	Hindware, Parryware, Jaquar, Somany, Roca, Cera
78	Vitrified Tile	Johnson -Marbonite, Somany, Kajaria, Orient Bell, NITCO
79	Wall Putty	JK, BIRLA, SARAPUTTY
80	Waste Pipe	Kamal, Viking, Jaquar
81	Water Proofing Compound (Liquid)	Pidilite, Cico, Impermo
82	White Cement	JK White, Birla White, Grasim



ANDHRA PRADESH TOWNSHIP & INFRASTRUCTURE DEVELOPMENT CORPORATION
1st Floor, Old Military Canteen, Syamalanagar, Guntur Circle.

FROM:
M.Ch. Koteswara Rao,
Dy.Chief Technical Officer,
APTIDCO,
Guntur Circle.

TO:
M/s Larsen & Toubro Ltd,
Cyber Gateway, B-block,
Wings-1, 1st floor, Madhapur,
Hyderabad-500081.

Lr.No.223/SE-GNT/APTIDCO/2017-18, Dated:01-11-2018

Sir,

Sub:-APTIDCO-Guntur Circle- Request for Approval of Material Samples for construction of EWS Unit under PMAY-APTIDCO Phase-II & III of Krishna District-Reg.


Ref:- 1.Memo No.General/HFA/APTIDCO/2017-18 Dated:28-12-2017 of Principal Chief Technical Officer, APTIDCO, Vijayawada.
2.Lol No.40/Krishna District/HFA/Phase II/CTO-II/APTIDCO/2017-18 Dt:15-02-2018.
3.Contract Agreement No.03/CTO.II/APTIDCO/2017-18 Dt.28-02-2018
4.Lr.No.40/Bal.Kri/KFA/CTO-II/APTIDCO/2018, Dt.14-09-2018
5.L&TCONS/APTIDCO/KRISHNA DT/059 Dated:31-10-2018 of L&T Constructions, Krishna District.

M/s Vectus Industries Limited, approached us vide their reference 5th cited for approval of utilization of their (VECTUS Make) ISI Brand of CPVC & UPVC SWR Type-A&B Pipes & Fitting Accessories in the construction of ULB's at Krishna District. The same were verified from their Company Profile submitted and found satisfactory for use in the DUs under construction.

You are here by advised to consider the ISI Brand of CPVC & UPVC SWR Type-A&B Pipes & Fitting Accessories (Brand VECTUS) as per the agreement and your requirement subject to the fulfillment of ISI standards and Test Certificates submitted by the manufacturer.



Yours faithfully,


Dy.Chief Technical Officer,
APTIDCO, Guntur Circle.

Copy to Project Officer, Krishna District with a request to allow only after satisfying 3rd party tests.

Copy to M/s Vectus Industries Limited for favour of information.

LIST OF APPROVED MAKES/BRANDS

PLUMBING & SANITARY

S. No	Material	Approved Makes/Brands		
1.	G.I / M. S Pipe	Tata	Jindal (Hisar)	Surya Prakash
2.	G. I Fittings	Unik	KS	Zoloto
		R-Brand	Surya	
3.	SS Pipes	Jindal	Tata	VIGA
4.	HDPE Pipes	Reliance	Jain Irrigation	Oriplast
		Vertex	West Well	Supreme
		Vectus		
5.	DI Pipes	Electrosteel	Jindal	Tata Ductura
6.	DI Fittings	Kartar	Electrosteel	Kalinga
7.	CI Fittings	Neel	Kartar	Electrosteel
8.	CI Double flanged sluice valve	Kirloskar	Sondhi	Kejriwal
		IVC		
9.	Float Valve	IVC	Leader	Zoloto
		KSB	CSA	
		Astral	Supreme	Finolex
10.	UPVC Pipe and Fittings	Prince	AKG	Surya Prakash
11.	Centrifugally Cast (Spun) Iron Pipes & Fittings	NECO	SKF	HEPCO
12.	Centrifugally Cast (Spun) Iron (Class LA) Pipes	NECO	Electro Steel	TATA
13.	Centrifugally Cast (Spun) Ductile Iron Pipes & Fittings	Electro Steel	Jindal (Hissar)	Kalinga
14.	C. I Manhole covers, Frames & GI Gratings	NECO	SKF	BIC
15.	SFRC Manhole covers & gratings	KK	OCR	PARGATI
		T-CON		
16.	RCC Manhole covers & frames	KK Manhole	Grating Co. (P) Ltd	ACCURATE BUILDCON
17.	Gun Metal Valves, Globes	Kartar	Castle	Zoloto
		Jaquar	Kohler	Parryware
18.	CP Brass Fittings	Hindware	Grohe	
19.	Sanitary Fittings & Accessories	Hindware (Italian collection)	Kohler	ROCA
		Duravit	PARRYWARE	CERA

CONTRACTOR

Chief Engineer (H&B)
APCRDA, VIJAYAWADA

S. No	Material	Approved Makes/Brands		
20.	Air purifier container	EURON ICS	UTEC	JAUAR
21.	Water Meter	Prima	Zoloto	Leader
		Capstan	Sant	
22.	Brass Stop & Bib Cock	Zoloto	Sant	L&K
		Leader	Astral	
23.	PVC Pipe & Fittings	AKG	Supreme	Finolex
		Surya Prakash	Vectus	Prince
24.	CPVC Pipes & Fittings	AKG	Astral	Supreme
		Finolex	Surya Prakash	Vectus
25.	Non Return Valve (Check valve) 1/2 " to 1 1/4"	Zoloto	Sant	Leader
		AIP	SKS	
26.	Brass Ferrules	Dhawan Sanitary Udyog	Kalsi	Annapurna
27.	Polythylene water storage tank	SINTEX	POLYCON	SPL
		VECTUS		
28.	Insulation for hot water pipes	KAIFLEX	ARMAFLEX	CAREFLEX
		Lloyd		
29.	Insulation for external / exposed hot water pipes	KAIFLEX	ARMAFLEX	CAREFLEX
30.	Pipe protection for external water supply pipes	PYPKOTE	ARMAFLEX	MAKPOLYKOTE
31.	Stainless Steel Sink	Neelkanth	Nirali	Jayna
		Cera		
32.	Stone ware pipes	Perfect	Hind	Burn
		RK		
33.	Plastic Encapsulated Foot Rest	KGM	KK	
34.	Gully Traps	Perfect	Hind	Burn
		RK		
35.	RCC Pipes (NP-2)	Lakshmi	Sood & Sood	Jain & Co.
		Pragati Concrete		
36.	Atactic Polypropylene	STP	HTL	Hydro Tech
		Pidilite		
37.	C. P Waste, Spreaders, Urinal Flush pipes	Jaquar	Parko	Hindware
38.	CI Double flanged sluice valve	KRILOS KAR	LEADER	SANT
39.	Pressure reducing valve	ZOLOT	TIMME	SKS

CONTRACTOR

Chief Engineer (H&B)
APCRDA, VIJAYAWADA

No. 926 /HC (Q.C.) Unit
Office of the Housing Commissioner,
Gujarat Housing Board, Pragatinagar,
Ahmedabad-380013
Date:- 20 6 18

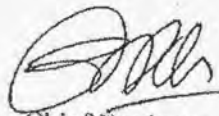
OFFICE MEMORANDUM

Sub:-Registration for approval of "VECTUS" Brand for CPVC, UPVC and SWR
Pipes & Fittings of VECTUS INDUSTRIES LIMITED for G.H.B Project.

With reference to your application as under, I am to state that your application has been carefully consider and it has been decided to place on list of approval "VECTUS" Brand for UPVC / CPVC/SWR pipes & Fittings of VECTUS INDUSTRIES LIMITED for ongoing and upcoming project of G.H.B.

The manufacturer has to carry out inspection and testing of product in accordance with relevant BIS provisions and shall supply the manufacture's test certificate with each consignment. The approval does not however absolve the Executive / Supervisory staff from the responsibility for using prescribed quality products.

To place on approval list does not guarantee to recommend your Brands for purchasing. The G.H.B. will only on list your brands name in tender documents as Registered Manufacturer of UPVC / CPVC/SWR pipes & Fittings.


F Chief Engineer
Gujarat Housing Board
Ahmedabad.

To.
VECTUS INDUSTRIES LIMITED
B/508, Dev. Aurum,
Anand Nagar Cross Road,
Prahlaad Nagar Road,
Ahmedabad.380014
Mo.9687685001

Copy to Supdt.Eng. (P-1/2), S.E (Q/C) G.H.B, A 'bad for information and necessary action.
Copy to Executive Engineer, G.H.B- Ahmadabad/Vadodara/Surat/Rajkot/ planning for
information and necessary action.



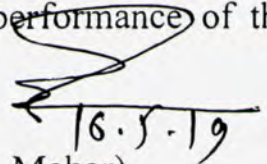
**M.P. HOUSING & INFRASTRUCTURE DEVELOPMENT BOARD
PARYAWAS BHAWAN MOTHER TERASA MARG, BHOPAL**

Circular No. **97** Dated **16/05/2019**

**VECTUS INDUSTRIES LIMITED, 41/42 Industrail Area
Banmore, District Morena (MP).**

The product is approved of VECTUS MAKE PRIDUCTS- PVC SWR Drainage Pipes (as per IS-13592) & SWR Fittings (as per IS-14375), CPVC Pipes (as per IS-15778), ASTM (D 1785), PPR Pipes, Vectus water tanks & fittings (as per IS-15801), Blow Moulded Tanks and Rotational Moulded (IS-12701:1996) Water Tanks for use on board's works for a period of Two years from the date of issue of this circular.

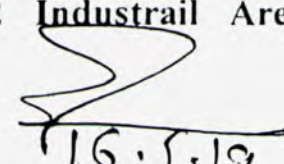
The executive staff is directed to report the performance of the product to this office.


(S.K. Mehar)

Addl. Housing Commissioner,
M.P.H. & I. Dev. Board Bhopal
Bhopal, DT **16 / 05 / 2019**

Endt. No. **629** /MPHB/

1. The Addl. Housing Commissioner, 1/2 M.P.H. & I. Dev. Board, H.O. Bhopal.
2. The Chief Architect, M.P.H. & I. Dev. Board, H.O. Bhopal.
3. The Dy. Housing Commissioner, 1/2 M.P.H. & I. Dev. Board, H.O. Bhopal.
4. The Dy. Housing Commissioner, M.P.H. & I. Dev. Board, Circle, 1 & 2 Bhopal / Indore / Gwalior / Ujjain / Sagar / Jabalpur / Rewa.
5. The Executive Engineer, M.P.H. & I. Dev. Board Dn. 1-2-3-4-5- & 6 Bhopal / Hoshangabad / Sagar / Damoh / Gwalior 1-2 / Morena / Guna / Indore / Project Indore / Dhar / Khandwa / Ujjain / Ratlam / Jabalpur 1-2 / Balaghat / Katni / Chhindwara / Rewa / Satna / Singroli / Shahdol.
6. **VECTUS INDUSTRIES LIMITED, 41/42 Industrail Area
Banmore, District Morena (MP).**


Addl. Housing Commissioner
M.P.H. & I. Dev. Board Bhopal



Grontmij & DRA

Shah Technical Consultants Private Limited

IN ASSOCIATION WITH

Grontmij A/S and DRA Consultants Pvt. Ltd.

Program Management, Design & Construction Supervision Consultancy Services for
Rajasthan Urban Sector Development Program- ADB Loan No. 3183-IND

Address: Transit Hostel, Opp-JVVNL Office, Civil Lines Tonk

Tel.: 01432-244115

Email: tonk.pmdsc@rusdp.com

Ref.: STC/RUSDP/TONK/ 517

Date: 24.01.2017

To

The Project Director
Tonk Water Supply Limited
Plot No.15, Ground Floor, Captain Colony
Tonk, (Raj)

Project: Construction of Work of water supply distribution network improvement with house service connections for Non Revenue water reduction and continuous water supply and providing sewer network with house connections, construction of STP & allied works & operation service of the entire systems for 10 years at Tonk (RUSDP/Tonk/01)

Sub: Approval to vendor, M/s Vectus Industries Limited for the supply of HDPE manhole

Ref: Your office letter no. TWSL/TONK-WSP/001/2016-17/675 dated, 11th Jan-2017

Sir,

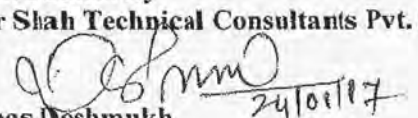
It is to inform that you had submitted the Vendor Credential of M/s Vectus Industries Limited for the supply of HDPE manhole vide letter under reference. The same has been reviewed and approved.

The Vendor and Product detail is mentioned in the following table

S.NO	Vendor Name& Address	Product
1.	M/s Vectus Industries Limited Plot No. 98/99 A, 1 st stage, Vasanthanasapura Indl. Area, Nagenahalli, Village Kora Hobli, Tumkur-572138, karnataka	HDPE Manhole

You are required to follow the Project Specifications and details given in the BOQ for the product. Also submit and take approval of Data Sheet and QAP before procurement. Approval shall not relieve the Contractor from any obligation or responsibility as specified in clause 5.2 of GCC.

Yours Sincerely
For Shah Technical Consultants Pvt. Ltd (Consortium)


Ulhas Deshmukh
Employer's Representative
PMDSC-Tonk

Copy to:-

1. S.E, PIU-RUSDP, Tonk
2. Team Leader, PMDSC Jaipur.



Tele: (033) 22625368 (Civ)
6647 (Army)

REGD BY SDS / POST

Headquarters
Eastern Command
Engrs Branch
PIN-908542
C/o 99 APO

136001/31/Gen/ ²¹⁸⁵ /Engrs/E2W

24 Apr 2019

ADG (NEI), C/o CCE (Army) No 3, Narangi

CE Kolkata Zone

CCE (Army) No 1, Dinjan

CE Siliguri Zone

CCE (Army) No 2, Misamari

CE Shillong Zone

CCE (Army) No 3, Narangi

CE (AF) Shillong Zone

CCE (NEP) (AF), Chabua

CE (Navy) Vizag

APPROVAL OF PRODUCT

1. **M/s Vectus Industries Limited** had approached this HQ for approval of their product i.e. **VECTUS Brand PPR, AGRI, SWR, CPVC, Composite Pipes & Fittings and Water Storage Tan.**

2. Approval of CMPT Committee-II constituted at this HQ in terms of E-in-C's Branch policy letter No A/37696/12-114/Pol/E2W (PPC) dated 05 Jun 15 and A/37696/12-114/Pol/ E2W (PPC) dt 11 Sep 18 is hereby accorded for use of the following products in MES works for period of **two years i.e. upto 23 Apr 2021:-**

(a) VECTUS Brand PPR, AGRI, SWR, CPVC, Composite Pipes & Fittings and Water Storage Tan - Group - I

3. Further continuation of the product will be decided thereafter, on the basis of the mandatory feedback / performance report submitted by Zonal Chief Engineers and CMPT-I Proceedings. In case anyone using the product notices any defect / discrepancy, the same will be reported immediately without waiting for the expiry of the period of two years.

4. The approval does not absolve the executive / supervisory staff from their responsibility for using correct quality product. It is only after they are satisfied about the quality and the performance, the product will be used. Mandatory checks about the quality will be carried out as laid down and the records of the same maintained.

5. Specification / details of the product like drawings, samples etc. can be obtained from the manufacturer at the address given below. **Zonal CEs are requested to ensure that only approved product by CMPT - II and CMPT - III are included in tender documents / zonal specifications.**

6. The firm is required to give feedback on sales / supply of approved items to MES contractors / formation / units on six monthly basis as per format below:-

S No	Name of Product	Supply to MES Contractors / Formations / Units	Location / Station	Date of Supply	Quantity Supplied	Amount (₹)	Supply Order No	Remarks
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)

Regd Office:-

M/s Vectus Industries Limited
262, Jiwaji Nagar Thatipur
Gwalior - 474 011 (MP)

Contact Person

Mr. Kamal Vats (9811109118)



(SK Singh)
Col
Col (Wks)
For Chief Engineer

Copy to:-

E2W (Design) Sub Dte
Dte of Wks, E-in-C's Branch
IHQ of MoD (Army)
Kahsmir House, Rajaji Marg
New Delhi - 110 011

M/s Vectus Industries Limited

262, Jiwaji Nagar Thatipur
Gwalior - 474 011 (MP)

PARTICULAR SPECIFICATION (CONTD)**APPENDIX 'A'****LIST OF PRODUCTS WHICH ARE GENERALLY SUPERIOR IN PERFORMANCE**

S.No.	List of products	Name manufacturers/Brand
1.	PP-R pipes and fittings	(i) SFMC, (ii) RELIANCE, (iii) VECTOUS,
2.	GI pipes and fittings (ISI Marked)	(i) Tata, (ii) Swastik, (iii) Jindal, (iv) Prakash Surya
3.	Bathroom fitting, CP cast copper alloy fancy type bib taps, stop valves and pillar taps	(i) GEM (ii)JAQUAR (iii) MARC (iv) DRIPLESS (v) SEICO (vi) SOMA (vii) PARCO (viii) LEARDER (Ix) JINZAL (x) PRAYAG (xi) PARYWARE (xii) ROMS
4.	Gun metal Gate valve	(i) Newage, (ii) Vijay (iii) Minimax, (iv) Getec , (v) BIR,
5.	Utility fittings	(i) Sparko (ii) Evershine (iii) Prakash
6.	PVC flushing cistern (ISI Marked)	(i) Commander (Water Bird) (ii) CERA (iii) Prayag (iv) Parry ware (Simline) (v) Speed Flo (vi) M/S Johnson Peddar Pvt Ltd Indore
7	Water meter	Anand Asahi, Kirloskar, Kaycee Dasmesh & Capstan.
8	Ductile Iron Pipes & Fittings	Electrosteel Casting Ltd,Jindal Saw Ltd,TATA(Tisco)
09	Rubber Gasket Joint for DI Spigot & Socket Pipe	Electrosteel,Kesoram,Kallinga,Kejrawal or Approved By GE confirming to IS 12820-1989
10.	Paints	(i) Berger Paints (Luxol HI Gloss) (ii) Joenson & Jicholson paints Ltd (Borolac) (iii) Goodlass & Nerolac paint (Nerolac Full Gloss) (iv) Shalimar paint (Superlac) (v) Asian paints (Apolite) (vi) ICI paint (Dulux Gloss) (vii) Rainbow paints & Chemicals Pvt Ltd. Jodhpur
11.	Cement Base paint	(i) Super Snowcem (ii) Duracem (iii) Accrocem
12.	Oil Bound Distemper/Acrylic, Oil emulsion and dry type	(i) Berger (Bison Super (ii) Jenson & Nichlson(Jensoline Acrylic) (iii) Goodlass & Nerolac(Super acrylic) (iv) Asian (Tractor Acrylic) (v) Shalimar paints(No1 Premium Acrylic) (vi) Nerolac paints


Signature of Contractor


Accepting officer

CCE(Army) No 2/02 of 2015-2016

PARTICULAR SPECIFICATIONS (Contd....)**Appendix 'C'**

Group 1		Group 2
Product		
2	3	4

ROAD FURNITURE

86. Cat Eyes/Studs (Metal/Plastic) /Rumble Strips/SpeedBreakers
- (i) 3M
(ii) Dark Eye
(iii) Sinor Infrastructure
- (i) Greenlite
(ii) Ace
(iii) Trafitronics
(iv) Lion
(v) Automat
87. Delineators/Road Barriers
- (i) 3M
(ii) Sinor Infrastructure
(iii) Dark Eye
- (i) Greenlite
(ii) Ace
(iii) Trafitronics
(iv) Lion
(v) Automat
88. Road Signage
- (i) 3M
(ii) Sinor Infrastructure
(iii) Dark Eye
- (i) Greenlite
(ii) Ace
(iii) Trafitronics
(iv) Lion
(v) Automat
89. HDPE/LDPE WATER TANK
- (i) Sintex
(ii) Polycon
(iii) Oriplast
- (i) Rotax
(ii) Polywell
(iii) SPL
(iv) Nikanth
- Q. SEWAGE DISPOSAL**
90. HDPE Pipes for Sewerage
- (i) Jain irrigation
(ii) Kisan *Supreme*
- (i) any othe ISI marked makes
91. RCC Pipes (NP2)
- (i) Any ISI marked makes.
- R. MISCELLANEOUS ITEMS**
92. CI centrifigally cast (Spun) pipes & fittings
- (i) Neco Centri
(ii) BIC
(iii) Electro steel
(iv) AIC
(v) PIC
- (i) Singhal Iron Foundry
93. PVC Soil/Waste/Rain Water (SWR) pipes and fittings
- (i) Jain Irrigation
(ii) Kisan
(iii) Supreme
(iv) Prince
(v) Anant
- (i) Tusker
(ii) King
(iii) Reliance
94. CPVC/UPVC Pipes and Fittings (Water & Sewerage)
- (i) Astral
(ii) Ashirwad Flowguard
(iii) Kisan
(iv) Reliance
- (i) Prime
(ii) Supreme
(iii) Prince
(iv) Vectus

View

A

Contd.../-

PARTICULAR SPECIFICATIONS (Contd....)**Appendix 'C'**

Ser No	Product	Group 1	Group 2
1	2	3	4

95. HDPE Pipes and fittings (Water) (i) Kisan (ii) Jain irrigation (iii) Supreme (iv) Prince (i) Orient (ii) kamal (iii) Vectus (iv) D-Rex Polyextrusion Ltd
96. Brass Ball (Float) Valves (i) Leader (i) Kingston (ii) Prayag (iii) Crescent (iv) BIR
97. CI manhole Covers (i) AIC (ii) PIC (i) Singhal Iron Foundry

S, E/M RELATED PRODUCTS (LT WIRES & CABLES)

98. PVC Insulated cable upto 1100 volts copper/Aluminium conductor sheathed/unsheathed as per IS 694:1990 (i) HPL India Ltd (ii) Havells India Ltd (iii) RR Kabel Ltd (iv) Finolex (v) Nicco (v) KEI (i) Indo American Electricals Ltd (ii) Plaza (iii) Mescab (iv) Polycab
99. PVC/XLPE insulated PVC sheathed heavy duty armoured/unarmoured cables upto 1100 volts, Aluminium/Copper conductors, solid/stranded as per IS 1554 Pt1 : 1998 & IS 7098 Pt1:1988 (i) HPL India Ltd (ii) Havells India Ltd (iii) Gloster Cables Ltd (iv) KEL Industries Ltd (i) Ravin Cables Ltd (ii) Eon Electric Ltd (iii) Crystal Cable Industries (iv) Mescab (v) Polycab
100. HT XLPE CABLES (i) Havells India Ltd (ii) Gloster Cables Ltd (iii) KEI Industries Ltd (iv) Asian (RPG) (v) CCI (i) Crystal Cable Industries Ltd (ii) Ravin Cable Ltd (iii) Polycab
101. Other cat of Cables/ABC Cable (i) Ravin Cables Ltd (i) Crystal cable Industries Ltd

T. PIPES CI, DI & GI PIPES

102. CI Pipes (i) Electosteel (ii) Kesoram (iii) Tisco (i) Lanco (ii) Kejrwal
103. DI Pipes with ISI Marks in range of 80mm to 1000mm (Except DN 125mm & 750mm) of class K7, K8 & K9 conforming to IS 8329/2000 (i) Rashmi Metalic Ltd (ii) Jindal Saw Ltd (iii) Electrosteel Casting Ltd (iv) Tata Metaliks (i) Lanco Industries Ltd (ii) Electrothem (iii) NECO
104. ERW MS pipes/GI Pipes/Fittings (i) Surya Roshni Ltd (ii) Tata (iii) Jindal Steel (iv) Prakash (i) Zenith (ii) Bansal (iii) Swastik (iv) BST

View



Contd.../-

PARTICULAR SPECIFICATIONS (Contd....)**Appendix 'C'**

Ser No	Product	Group 1	Group 2
1	2	3	4

U. PVC, UPVC & HDPE PIPES & FITTINGS

105.	PVC Pipes & fittings	(i) Kisan Moouldings Limited (ii) Ori-Plast (iii) Supreme (iv) Prince (v) Finolex	(i) Jain Irrigation Systems Ltd (ii) Tripati (iii) Dutron
106.	UPVC/CPVC/RWP	(i) Ori-past (ii) Supreme (iii) Prince (iv) Finolex	(i) Dinesh Irrigation (ii) Tripati (iii) Dutron
107.	UPVC Casing for Bore Well Pipes	(i) Kisan Mouldings Limited	
108.	HDPE Pipes & Fittings	(i) Kisan Mouldings Limited	(i) Jain Irrigation Sysems Ltd
109.	SWR Pipes	(i) Kisan Mouldings Limited	(i) Jain Irrigation Systems Ltd
110.	<u>PPR Pipes & Fittings</u>	(i) Sfmc (ii) Reliance (iii) Vectus	(i) Savoir-Faire — Manufaturing Co Pvt Ltd (ii) Prince (iii) Fusion

V. OTHER CAT OF PIPES

111.	Composite Pipes/ASTM Pumping Pipes/Summersible Pipes/Micro Irrigation Pipes Casing Pipes/Under Ground Drainage pipes Hot & Cold Water Distribution system	(i) Kisan Mouldings Limited (ii) Jain Irrigation Systems Ltd (iii) Savoir-Faire Manufaturing Co Pvt Ltd	(i) Any Make ISI marked
112.	Conduit Steel ERW	(i) Tata (ii) Jindal (iii) Kalinga (iv) BEC	(i) AKG (ii) Prakash (iii) Steel Kraft
✓ 113.	<u>Conduit PVC</u>	(i) Presto Plast (ii) Finolex (iii) Indo American Electricals Ltd (iv) Kalinga Gold	(i) Prince (ii) Plaza (iii) AKG (iv) Richa Cables Pvt Ltd
114.	PVC casing caping	(i) Presto Plast (ii) Finolex (iii) Kalinga	(i) Prince (ii) Plaza (iii) AKG
115.	<u>Light fitting /Lamps</u> Flame Proof fittings	(i) Bajaj (ii) Crompton Greaves (iii) Sudhir	(i) Atlas (ii) Baliga (iii) Shyam
116.	Fuorescent tube light/CFL fittings	(i) Philips (ii) Crompton Greaves (iii) Havells (iv) Surya Roshni Ltd	(i) Halonix (ii) Bajaj (iii) Wipro (iv) HPL India Ltd

Views

[Signature]

Project Manager Baisakhi
C/o CCE (Army) No. 2
PIN 908471
C/O 99 APO

48

8023/PMB/48/E8

07 Jun 2019

M/s Mecgale Pneumatics Pvt Ltd,
N-64, 74 M.I.D.C, Hingna Road,
Nagpur (MH)
Pin - 440016

**CA NO. CCE (ARMY) NO. 02/05 OF 2017-18 : AUGMENTATION
OF CENTRAL SEWAGE SYSTEM AT MISSAMARI**

Dear Sir,

1. Ref your office letter No MPPL-B 1906/MES-MISSAMARI/GHY/CN-43 dt 30 May 2019.
2. Product/ brand name of M/s VECTUS INDUSTRIES LIMITED is hereby approved for Pre-fabricated PE Manhole as per EN 13598-2:2009 for your further necessary action please.
3. As per clause 18(C) of special condition of contract agreement of the purchases voucher and test certificate for every lot be submitted at the time of receipt of consignment at site .



(Anand Singh)
Capt
Offg PM Baisakhi



Copy to :-

CCE (Army) No 2
(E-8 Section)
PIN 908471
C/o 99 APO

for info pl.

Regd/Post
Headquarters
Chief Engineer
Northern Command
PIN - 914 698
C/o 56 APO

42151/C-08/ 32/E-3

09 Feb 2019

CE Udampur Zone
CE 31 Zone
CE Leh Zone

APPROVAL OF NEW PRODUCTS : B/R ITEMS

Dear,

1. Ref IAFD 931, CMPT-II Committee held in this HQ on 27 Aug 2018
2. M/s Vectus Industries Ltd approached this HQ for approval of their products in Defence Works.
3. Approval in terms of Policy letter No. A/37696/12-114/Pol/E2W (PPC) dated 05 Jun 2015 hereby accorded for use of following products in Def works for including the items for trial with limited quantities for two years by the CMPT Committee -II constituted at this HQ.
 - (a) VECTUS" PVC Pipes, PPR Pipes, CPVC Pipes, SWR Pipe , Composite Pipe and fittings water storage tank.
4. Further continuation of the products will be decided thereafter, based on the mandatory feedback/ performance report submitted by Zonal Chief Engineers. In case anyone using the product notices any defect / discrepancy, the same will be reported immediately without waiting for the expiry period.
5. The approval does not absolve the executive / supervisory staff from their responsibility for using correct quality product. It is only after they satisfied about the quality will be carried out as laid down and the records of the same maintained.
6. Further specifications / details of the product like drawings, samples etc can be obtained from the manufacturer at the address given below:-
7. The firm is required to give feedback on sales/ supply of approved items to MES contractors/ Formations / Units on six monthly basis as per format given below:-

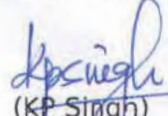
S.No	Name of Product	Supply to MES Contractor/Formation/Unit	Location /Station	Date of Supply	Quantity supplied	Amount (Rs)	Supply Order No.	Remarks
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)

7. The firm is required to submit a minimum of 05 No performance reports from the MES as per the para 6 above at the time of renewal, failing which case will not be considered for renewal.

BY REGD POST

M/s Vectus Industries Ltd
Khasra No 134
Moujz Rukh Rajpura
Parmadal more Jammu
Samba (J&K)- 9697039410

Your's faithfully


(KP Singh)
Col
Col (Wks)
for Chief Engineer

Telephone: 020-26334514

CMPT Cell
Headquarters
Chief Engineer
Southern Command
Pune - 411 001


CESC/CMPT/ 212 /Gen

03 Sep 2018

CE Pune Zone	CE Bhopal Zone
CE Chennai Zone	CE Jodhpur Zone
CE (Navy) Mumbai.	CE (NW) Kochi
CE (A&N) Port Blair	CE (AF) Bangalore
CE (AF) Nagpur	

**ANNUAL BOO FOR YR 2018-19 FOR SELECTION OF PRODUCTS
FOR INCORPORATION IN MES WORK:**

1. Pl ref CMPT policy letter issued vide E-in-C's Branch letter No A/37696/12-114/Pol/E2W (PPC) dt 05 Jun 2015.
2. Copy of annual bd of offr for yr 2018-19 for selection of products for incorporation in MES wks duly sanctioned by Army Cdr is fwd herewith for incorporation of products in CAs.
3. The same may pl be promulgated upto AGE level. Also it is intimated that all Str Cdrs may pl be apprised of all the products in all categories as per CMPT policy letter.
4. The soft copy of bd proceeding is also made available on Army web. Users may be requested to download the same.
5. For your info & necessary action pl.


(Radha Mohan Rout)
SE
Dir E/M
for Chief Engineer

Encls: As above

Copy to :-

HQ SC Q(Wks) Br - Copy of the noting sheet & Bd proceeding is enclosed for records pl.

Internal NOO

ADP Sec - You are requested to upload the same on Army web.

RESTRICTED

32

S. No	Item	Brand CATEGORY -I	Brand CATEGORY - II	Remarks
18	PVC Water Tanks/ Polyethylene	Sintex	Plasto, Nagpur	Approved number of Asterix (*) marked newly added firms listed in Appx D
		Polycon, Jaipur	Polywell M/S Okey Polymers; Pvt Ltd	
		Rotex	JS Polyplast	
		Infra	Ergen Plastic Industries, Jodhpur	
			*Vectus Industries Ltd	155
			Ashish Plast	
			*Piyush Plasto Chems Pvt Ltd (MODIGOLD)	71
19	C P Bib Cock, Stop cock, pillar cock and accessories	Jaquar	Marc	
		Soma	Parco	
		Leader	*Dhawan Sanitary Udyog (PRIMA)	62
		Zoloto	Sieco	
			Gem	
			*Mohan Metal Industries (CORONET)	136
			*Shakti Enterprises	20
			*Status Sanitech Private Ltd.,	16

RESTRICTED

RESTRICTED

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S. No	Item	Brand		Brand	Remarks
		CATEGORY - I	CATEGORY - II		
3A	Hubless Centrifugally Cast Iron Pipes & Fittings		*Jayaswal NECO Industries Ltd	Approved number of Asterix (*) marked newly added firms listed in Appx D	61
4	MS Pipes & Fittings	Tata	Swastik		
		Jindal	Prakash		
		Zenith	Surya		
		BST			
5	HDPE Pipes & Fittings	Finolex	Kisan		
		Prince	Tirupati		
		Supreme			
		Jain Irrigation Sys			
6	CPVC pipes and fittings (Chlorinated polyvinyl chloride)	Finolex	*Vectus Industries Ltd		152
		Dutron	*Ajay Industrial Corporation Ltd		140
		SFMC	*Ashirvad Pipes Pvt Ltd (ashirvad)		195
			Ajay Flowguard, Delhi		
			*Prayag Polymers(P) Ltd		299

RESTRICTED

RESTRICTED

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S. No	Item	Brand		Remarks
		CATEGORY -I	CATEGORY - II	
7	PVC - Soil, waste, rainwater (SWR) & Drainage pipes	Supreme	Dinesh	Approved number of Asterix (*) marked newly added firms listed in Appx D
		Prince	Amogh Plast	
		Kisan	Astron Plastic	
		Finolex		
		Infra		
7A	PPR Pipes & Fittings	Prince	*Savoir Faire Manufacturing Co. Pvt. Ltd (SFMC)	17
		Finolex	*Kanha Plastics Pvt Ltd (KPT)	75
		Supreme	*Vectus Industries Ltd	153
7 B	PVC Pipes & Fittings	Prince	*GM Modular Pvt Ltd	51
		Finolex		
		Supreme		
7 C	UPVC Pipes and Fittings	Prince	*Kanha Plastics Pvt Ltd(Make KPT)	76
		Finolex	*Sarovaram Industries (LLP)	88
		Supreme	*AKG Extrusions Pvt Ltd (AKG)	116,117
			*Ajay Industrial Corporation Ltd (GREENLINE)	141
			*Kisan Mouldings Ltd	144
			*Vectus Industries Ltd	150
			*Ashirvad Pipes Pvt Ltd (ashirvad)	196

RESTRICTED

RESTRICTED

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S. No	Item	Brand		Brand	Remarks
		CATEGORY - I	CATEGORY - II		
7 D	UPVC Pipes & Fittings for SWR	Prince	*Sarovaram Industries LLP	Approved number of	89
		Finolex	*AKG Extrusions Pvt Ltd (AKG)	Asterix (*) marked newly	
		Supreme	*Ajay Industrial Corporation Ltd	added firms listed in Appx D	
			*Vectus Industries Ltd		142, 143
			*Ashirvad Pipes Pvt Ltd (ashirvad)		151
					197, 198
7 E	Polyethylene / Aluminium/Polyethylene Composite Pressure Pipe	Prince	*Vectus Industries Ltd		154
		Finolex			
		Supreme			
7 F	Plastic Pipe (for non pressure Drainage & Sewaragae)	Prince	*Ashirvad Pipes Pvt Ltd		199
		Finolex			
		Supreme			
8	CI - Soil, waste, rainwater (SWR) & Drainage pipes	NECO, Nagpur	SKF (Singhal Iron Foundry, Mathura)		
		Kesoram	Bengal Iron Co		
		Electro Steel	Dhatu Udyog		
			Kapilansh, Nagpur		
			Anand Founder & Engineers		

RESTRICTED

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33158 / TNP // E2 (P&C)

19 Jun 2019

HQ CE CZ Chandigarh
 HQ CE PZ Pathankot
 HQ CE JZ Jalandhar
 HQ CE DZ Delhi
 HQ CE (AF) WAC Palam Delhi

PRODUCT APPROVAL

1. Ref IAFD 931, CMPT-II Committee held in this HQ on 15 May 2017 and letter No 33158/TNP/3299/E2 (P&C) dt 02 Jun 2017.

2. M/s Vectus Industries Ltd approached this HQ for approval of their products in Defence Works.

3. Approval in terms of Policy letter No. A/37696/12-114/Pol/E2W (PPC) dt 05 Jun 2015 hereby accorded for use of following products in Defence Works for the period upto **31 May 2019** by the CMPT Committee II constituted at this HQ. The next CMPT-II and Review BOO will be held at this HQ in Jun 2019. To ensure continuity of the products approval fwd vide above quoted letter, the validity of the products given below is further extended herewith till **30 Sep 2019**.

- | | | |
|---|---|--|
| <p>(a) PPR/SWR/CPVC/Composite
Pipe and fittings</p> <p>(b) HDPE water storage Tanks</p> | } | <p>Group - I, II & III
(Make VECTUS)</p> |
|---|---|--|

4. Further continuation of the products will be decided thereafter, based on the mandatory feedback / performance report submitted by CE Zones. In case anyone using the product notices any defect / discrepancy, the same will be reported immediately without waiting for the expiry period.

5. The approval does not absolve the executive / supervisory staff from their responsibility for using correct quality product. It is only after they satisfied about the quality will be carried out as laid down and the records of the same maintained.

6. Further specifications / details of the product like drawings, samples etc. can be obtained from the manufacturer at the address given below.

7. The firm is required to give feedback on sales / supply of approved items to MES Contractors/ Formations / Units on Six monthly basis as per format given below:-

S No	Name of Product	Supply to MES Contractor/ Formation/ Unit	Location / Station	Date of Supply	Quantity supplied	Amount (₹)	Supply Order No	Remarks
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)

8. The firm is required to submit a minimum of 05 No's performance reports from CE Zones as per the Para 4 above at the time of renewal, failing which case will not be considered for renewal.

BY REGD POST✓ **Office Address:-**

M/s Vectus Industries



(R S Bhasin)
 Col
 SO-I (P&C)
 For Chief Engineer

Madhya Pradesh Jal Nigam Maryadit
List of newly enlisted Vendors for different materials against EO
Notice No. 1921/03/Tech./MPJNM/2018 Dated 19.04.2018

(A) Name of firms & their manufacturing Units enlisted against EO Notice No. 1921/03 /Tech/ dated 19.04.2018 :-

S.No	Name of Item	Name of Firm	Name & Address of Manufacturing Unit	CM/L No. of Manufacturi ng Unit	Remark
(1)	(2)	(3)	(4)	(5)	(6)
1	DI Pipes	M/S Srikalahasthi Pipes Limited, Chennai	M/s Shrikalahasthi pipe Ltd. Rachagunneri, Village- Srikalahasthi Mandal Distt-Chittoor (A.P.)- 517641	CM/L-6245464	-
2	HDPE Pipes	M/s Kriti Industries (India) Limited, Indore,	M/s Kriti Industries (India) Limited 75-86 Sector -II, Pithampur, Distt- Dhar (M.P.)	CM/L-8250467	Subjected to condition that the firm shall has/have to submit the celearence from BIS as per IS 4984 :2016
		M/s The Supreme Industries Ltd., Mumbai	M/s The Supreme Industries Ltd, Unit No. - III GAT NO, 47,47/2, 48 to 50,55 to 66,69, 70,72 & 73, Jalgaon- Aurangabad StateHighway, at post- Gadegaon Tal Jamner, Distt- Jalgaon-425114	CM/L-7789412	
		M/s Makknow Industries, Raipur	Makknow Industries 632/A633, Industrial Area, Urla, Block-Sinva, Raipur, Chhattisgarh- 493221	CM/L- 3092854	
		M/s Texmo Pipes and Products Limited, Burhanpur	M/s Texmo Pipes and Products Limited, P.B. NO. 35, 98, Bahadarpur Road, Burhanpur (M.P.) 450331	CM/L-8428886	
		M/s Kisan Irrigations and Infrastructure Ltd., Indore	M/s Kisan Irrigations and Infrastructure Ltd. (Unit-II) PLOT no 91-110, Sector 3, Sagore Kuti , Industrial Area, Pithampur, District-Dhar- 4547774	CM/L- 3055444	

S.No.	Name of Item	Name of Firm	Name & Address of Manufacturing Unit	CM/L No. of Manufacturing Unit	Remark
(1)	(2)	(3)	(4)	(5)	(6)
		M/s Polysil Irrigation Systems Pvt.Ltd., Mumbai	M/s Polysil Irrigation Systems Pvt.Ltd. 137/1, Madhuban Dam, Village- Karad, Silvassa, (DN&H) – 396230	CM/L- 7899924	
		M/s Apollo Pipes Ltd. Delhi	M/s Apollo Pipes Ltd. Plot (Khasra No. 2928 & 2938), Dhoom Manikpur,	CM/L-3161342	
			Dadri , District G.B. Nagar (UP)		
		M/s Vishal pipes Ltd. Delhi	M/s Vishal pipes Ltd. (Unit-3) A-68 and A-68/1, Industrial Area Sikandrabad- 203205 (UP)	CM/L-2597677	
	HDPE Pipes	M/s Vectus Industries Ltd. Noida	M/s Vectus Industries Ltd. Plot No. 41,42 Industrial Area, Banmore, District- Morena- 476444	CM/L-8200019204	Subjected to condition that the firm shall has/have to submit the clearance from BIS as per IS 4984 :2016
		M/s Parixit Irrigation Ltd. Ahemdabad	M/s Parixit Irrigation Ltd. Survey No. 214/1, 214/2, Virpura Bus Stop, P.O. Lyava, Taluka , Sanand, District Ahemdabad-382170, (Gujrat)	CM/L-7014147	
		M/s Sagar Polytechnic Ltd. rajkot	M/s Sagar Polytechnic Ltd. Plot no. 109- 111 Bamanbore, Chotila, District – Surendra nagar –(Rajkot)	CM/L-7474787	
		M/s Nimbus Pipes Ltd. Jaipur	M/s Nimbus Pipes Ltd. SP-2, 123 & 123A, RIICO Industrial Area, Manda, Via-Chomu, Jaipur (Rajsthan)	CM/L-8742084	
3	Power Transformers	M/S Shri Ram Switchgears Ltd., Ratlam	M/s Shriram Switchgears Ltd. 14-15, Industrial Estate, Ratlam (M.P.)	CM/L- 8200040898	Only for Oil immersed distribution BEE 3 star rated transformer

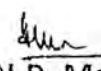
dmr

S.No.	Name of Item	Name of Firm	Name & Address of Manufacturing Unit	CM/L No. of Manufacturing Unit	Remark
(1)	(2)	(3)	(4)	(5)	(6)
4	WTP equipment : Flash mixers, Clariflocculators, Flocculators, Rotating bridge, Blowers etc	M/s Adroit Associates, Indore	M/s Adroit Associates. 07-malwa Market, 330-Udyog Nagar, Musakhedi, Indore (M.P.)	-	-
		M/s Imac Engineering, Howrah	M/s Imac Engineering, Balitikuri, Ghospara, Howrah- 711113 (W.B.)	-	-
5	DI Fittings	M/s R.G. Industries, Jalandhar	M/s R.G. Industries Village Fazalpur, Behind Focal Point , Near Randhawa Masandan, Jalandhar-144004	CM/L- 9617995	-
6	HDPE Fittings (Compression fittings, Tapping Saddles, Electrofusion Couplers)	M/s AL-AZIZ PLASTICS PVT. LTD. Mumbai	M/s AL-Aziz Plastics Pvt. Ltd. Plot No. 5-14, Achhad Industrial Estate, Achhad, Taluka-Talasari, District Palghar-401606	-	-

(B) Modified Name of firm already enlisted :-

S.No.	Name of Item	Existing Name of Firm as per Tender Document	Modified Name of Firm	Name & Address of Manufacturing Unit	CM/L No. of Manufacturing Unit	Remark
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	HDPE Pipe	M/s Godavari	M/s Godavari Polymers Pvt. Ltd.	M/s Godavari Polymers Pvt. Ltd. 153,B,C,E,&F, Phase-II, IDA, Cherlapali Hydrabad- 500051	CM/L 6034653	-

Bhopal
Date : 18.07.2018


(N.P. Malvia)
Project Director



A Navratna CPSE

NBCC (INDIA) LIMITED
(A GOVT. OF INDIA ENTERPRISE)
OFFICE OF CGM (CPG)

NBCC Bhawan, 2nd Floor, Lodhi Road, New Delhi-110003.
Mail ID: cpg.ho@nbccindia.com

Date: 17.08.2017

CORRIGENDUM/ ADDENDUM 01

Sub: Tender for Re-development of ITPO Complex into Integrated Exhibition –Cum-Convention Centre (IECC) at Pragati Maidan, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance.

Ref: NIT NO. NBCC/CPG/ ITPO/NEW DELHI/2017/94 dated 25.07.2017 published on E-tendering websites www.tenderwizard.com/NBCC and www.eprocure.gov.in on 27.07.2017.

With reference to above referred NIT, Corrigendum/Addendum No. 01 is hereby issued as under.

- 1.) The Clarification/Replies to the Pre-Bid Queries of the Pre-Bid Meeting held on 05.08.2017 for the above mentioned work is uploaded herewith in tender notification location.
- 2.) Following documents are uploaded herewith in tender notification location:-
 - a) **Volume 3 – Part – Technical Specification** – Partly changed in the Technical Specification uploaded along with the NIT.
 - b) **Volume 2 – Part – Updated Status of NOC**
 - c) **Volume 4 – Part1 – Drawings** – Revised and Additional Drawings
 - d) **Volume 4 – Part2 – Drawings** – Revised and Additional Drawings
 - e) **Volume 6 – Part – Updated Sewage System Design**
- 3) Brief description for the changes made is attached with this Corrigendum/Addendum 01.
- 4) Additional Special Condition of Contract is uploaded herewith in tender notification location

All other terms and conditions of tender shall remain same.

Sd/-
AGM (CPG)

Subject:- Re-development of ITPO Complex into Integrated Exhibition –Cum-Convention Centre (IECC) at Pragati Maidan, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance.

Tender Reference: NBCC/CPG/ ITPO/NEW DELHI/2017/94 DATED 25/07/2017

Corrigendum No_01

11	Page ref.- LIST OF RECOMMENDED MAKES PLUMBING SYSTEM Volume-03_TECHNICAL SPECIFICATION	CPVC Pipes and Fittings AKG / Astral	CPVC Pipes and Fittings AKG / Astral/ Vectus
12	Page ref.- LIST OF RECOMMENDED MAKES WATER TREATMENT PLANT Volume-03_TECHNICAL SPECIFICATION	CPVC pipes_Ajay / Ashirwad / Astral	CPVC pipes_Ajay / Ashirwad / Astral / Vectus
13	Page ref.- LIST OF RECOMMENDED MAKES SEWAGE TREATMENT PLANT Volume-03_TECHNICAL SPECIFICATION	CPVC pipes_Ajay / Ashirwad / Astral	CPVC pipes_Ajay / Ashirwad / Astral / Vectus





संचालनालय, नगरीय प्रशासन एवं विकास, म०प्र०, भोपाल
Directorate, Urban Administration & Development, M.P., Bhopal

Palika Bhawan, Near 6 No. Bus Stop
Shivaji Nagar, Bhopal - 462016
Tel. 0755-2554080 Fax 0755-2554080
Email:- anandsingh@mpurban.gov.in
Website: www.mpurban.gov.in

क्रमांक/याँ०प्र०/०७/२०१८/१११०

भोपाल, दिनांक २५/१०/२०१८

प्रति,

1. समस्त आयुक्त,
नगर पालिक निगम,
मध्यप्रदेश
2. समस्त मुख्य नगर पालिका अधिकारी,
नगर पालिका परिषद्/नगर परिषद्
मध्यप्रदेश

विषय:- निर्माण कार्य में उपयोग की जा रही सामग्री के सम्बंध में।

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संचालनालय में विभिन्न निर्माण सामग्री के Manufacturers द्वारा समय-समय पर आवेदन देकर उनके द्वारा तैयार करवाई जा रही निर्माण सामग्री को निर्माण कार्य में उपयोग करने के लिए List of Approved Brand and Makes में सम्मिलित करने के लिए अनुरोध किया है, जो आवेदन संचालनालय को प्राप्त हुये उनका संक्षिप्त विवरण संलग्न प्रपत्र में दिया जा रहा है।

जहां तक की विभाग के Integrated Standard Shedule of Rates 2012 अथवा Bidding Document में किये गये प्रावधान का प्रश्न है विभिन्न निर्माण सामग्री के Make या Manufacturer के बारे में सूची सहित उल्लेख किया गया है परन्तु यह स्पष्ट किया गया है कि सामान्य Indicative की सूची है, यदि निर्माण सामग्री की विशिष्टियों की पूर्ति करते हुए कोई "Equivalent" सामग्री का उपयोग प्रस्तावित करता है तो भी यह नियमानुकूल होगा। कार्य के Engineer In-charge का यह दायित्व होगा कि दर अनुसूची अथवा निविदा में दिये गये निर्माण सामग्री के Specifications को पूर्ति करने के लिए आवश्यक Test या Test Certificats आदि को पूर्णतः जांच कर प्रावधानित Indicative List के दर्शित Make का Equivalence स्थापित करने के उपरान्त Equivalent सामग्री के लगाये जाने के विषय में निर्णय ले यदि किसी प्रकरण विशेष में Engineer In-charge को निर्णय लेने में कोई दिक्कत होती है तो सम्बंधित नगरीय निकाय (नगर निगम को छोड़कर) के मुख्य नगर पालिका अधिकारी की अध्यक्षता में निकाय के वरिष्ठतम इंजीनियर, सम्भाग के प्रभारी कार्यपालन यंत्री एवं Independent Agency SQC/PDMC/PMC के RE की एक समिति द्वारा परीक्षण किया जाकर यथोचित निर्णय लिये जाये। नगर पालिक निगम के मामले में आयुक्त, नगर पालिक निगम की अध्यक्षता में निगम के वरिष्ठतम यंत्री, कार्य के प्रभारी यंत्री एवं Independent Agency SQC/PDMC/PMC के RE की समिति द्वारा निर्णय लिया जाये।

(संलग्न:- उपरोक्तानुसार)

(प्रभाकांत कटारे)

प्रमुख अभियंता,
नगरीय प्रशासन एवं विकास
मध्यप्रदेश, भोपाल

पृष्ठां. क.याँ०प्र०/०७/२०१८/११११
प्रतिलिपि,

भोपाल, दिनांक : ०५/१०/२०१८

समस्त संभागीय कार्यपालन यंत्री, नगरीय प्रशासन एवं विकास मध्यप्रदेश की ओर
आवश्यक कार्यवाही हेतु।

प्रमुख अभियंता,

नगरीय प्रशासन एवं विकास,
मध्यप्रदेश भोपाल

URBAN ADMINISTRATION & DEVELOPMENT DEPARTMENT
LIST OF PRODUCT

S.No.	Name of Applicant	Material/Item/Product	Details of Product	ISI/ISO Details
1	Oasis	Tiles& Sanitary ware	Polished Vitrified 60cmx60cm	ISO 9001:2008
2	Oasis	Tiles	Kerastone Full Body Vitrified tiles (60cmx60cm) thickness 10mm, 16mm and 3mm	ISO 9001:2008
3	Oasis	Tiles	Double Charge Vitrified Glossy Finish (120x80cm 80x80cm 60x60cm)	IS: 15622
4	Oasis	Tiles	Digital Wall Tiles (30x45cm)	ISO : 9001:2008 IS : 15622
5	Oasis	Tiles	Mariposa Ceramic Wall 30x60cm/ Glossy /Malt	IS : 15622
6	Orient bell Tiles	Tiles	*Ceramic and Vitrified tiles *Ultra - Vitrified tiles	ISO 14001:2015 ISO 9001:2015
7	Orient bell Tiles	Tiles	Floor Tiles Collection	ISO 14001:2015 ISO 9001:2015
8	Oasis	Tiles	*PGVT/GVT *Foresta Wooden stride 80x120cm/ 60x120cm/ 80x80cm/60x60cm/19.5x12 0cm	IS:15622
9	AGL	Tiles	* Digital Ceramic tiles * Polished Porcelain tiles * Glossy	ISO 14001:2015
10	Zeal top Grami to Pvt. Ltd.	Tiles	Vitrified Double Changel&Solable Salt with	ISO 9001:2008
11	Oasis	Tiles	*Vitrified Tiles *Wall Tiles	ISO 9001,14001,18001
12	Oasis	Tiles	*Elevation Wall Tiles (300x600mm) *Parking Tiles (300x300mm) *Kerastone (400x400mm)	ISO 9001:2008
13	Johnson	Tiles	Vitrified Tiles, Marvels	ISO 9001-2015
14	Simpolo Vitrified Pvt. Ltd.	Tiles	Vitrified Tiles, Marvels	ISO 9001-2015
15	Wonder Agritech PVT.LTD.	Pipe & Fittings	* HDPE Pipe & Fittings * DWC HDPE Pipe & Fittings * HDPE Cable Duct Pipes * C-PVC Pipes & Fittings * U- PVC Pipes & Fittings * CI Pipes & Fittings	ISO 9001:2015
16	SFMC Pvt.Ltd.	Pipe fitting	*PPR	ISO 9001:2015
			*PVC	ISI : 15801
			*SWR	
			*CPVC	
17	West Well Polytubes	Pipes	*HDPE Pipes for water supply	ISO 9001:2008
			*HDPE Pipes for water	IS 4984:1995
			*Sewerage	
			*HDPE Pipes for irrigation purposes	
18	Shree Jogi pipe Industries	Pipes	HDPE Pipes and Sprinkles	ISO 9001:2008
			Pipes PE 63, PE 80, PE 100	IS 4984:1995

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	Vectus Industries LTD.	Pipes & Fittings	* PPR Pipes	IS:14735
		Tank	* AGRF Pipes	IS13592, 4985, 7834, 15450
			* SWR Pipes	
			* HDPE Pipes	
			* CPVC Pipes	
			* Water Storages Tank	
			* Composite Pipes	
20	B.R. Poly plast LLP	Pipes	* High Density Polyethylene	IS 4984:1995
21	M/S Kanha Plastics Pvt. Ltd.	Pipes & Fittings	* Portable Water Supply	
			* PPR Pipes	ISO : 9001 : 2015
			* AGRF Pipes	ISO : 14001 :2015
			* SWR Pipes	
			* HDPE Pipes	
			* CPVC Pipes	
			* Water Storages Tank	
			* Composite Pipes	
22	Sigma Flow Control India LTD.	Valves, ductile iron pipe fittings and Couplings	*UPVC Pressure piping	
			* SWR piping systems	
			* Gate Valves (50NB to 1000NB, rating PN 10/16)	
			* Butterfly Valves (50NB to 2000NB, rating PN 10/16)	ISO 9001:2008
			* Non-Return Valve (50NB to 1000NB, rating PN 10/16)	
23	AVK Values India PVT. LTD	Valves	* Kinetic Value (50NB to 200NB, rating PN 10/16)	
			* Gate Valves DN50-DN800	
			* Air Valves DN50-DN200	
			* Large Diameters Gate Valves	
			* Butterfly Valves DN200-DN1200	
24	SANGAM STEEL Mahalaxmi TMT Pvt. Ltd.-An Integrated Steel Plant	Steel Bar	* Repair Clamps	
25	Dhawan Sanitary Udyog	Bathroom Fitting and Accessories	Sangam TMT/TMX Bar Fe 500/550 grade QST bar .	BIS As per IS 1786:2008 grade.
26	Plastocraft Sanitary (I)PVT.LTD.	Bathroom Fitting and Accessories		ISO 9001:2015
27	Bhawani Sales & Marketing	Bath Fittings	* C.P. Bath Fittings and Accessories	IS 8931:1994
		Kitchen Sinks	* PTMT Both Fittings and Accessorise	
		Plastic Cistern	* S.S. Kitchen Sinks and Plastic Cistern	
		Frames	* Vishwas Pre cast Frames	
			* RCC Frames for Building	IS 6523:1983

22.04

	AQUA	Pumps	*Water Pumps, Waste Water Pumps, Sewage, Power, Strom water	ISO 9001:2008
29	Redix Electro Systems Pvt. Ltd.	Manufacture at Process Control Instrumentation	* Flow Meters * Flow Switches * Flow Indicators * Flow Totalisers * strainers	ISO 9001:2008
30	KEI	Wires and Cables		IS . 694 ISO 9001:2000
31	Forbes Marshal	Flow Metre, Lable Transmeter, COD, BOD Mazing Device		ISO 9001:2015
32	Sureseal	Wate Hammer Control Solutin		
33	Inhibeo	Water Solution	* STP * ETP *ZLD * Water Treatment	ISO 9001:2015
34	Roca	Bathroom Products		ISO 9001:2015
35	Surya		Gi Pipes, Ms Pipes, CPVC Pipes, UPV Pipes,	ISO 9001:2015
36	Alstone Pvt. Ltd.	WPC (Wood Polymer Composit Board)	Door Fram, Plywoods	ISO 9001:2015
37	Icam System Ltd.	Electrical & Contol Salution, Information Salution	Wood Polymer Composite	ISO 9001:2015
38 ✓	Jain Irrigation System Ltd.	UPVC, CPVC, SWR, PVC (Pipes)		IS 13592:2013, IS 14753:1999,

(Anand Singh)

Executive Engineer

Urban Development & Environment
Madhya Pradesh



**MP POLICE HOUSING AND INFRASTRUCTURE DEVELOPMENT
CORPORATION LTD,**

BHADBHADA ROAD, BHOPAL (M.P.)

No./ 2014 / MPPHIDC/TS/SA/

/BPL/17/ DATED - 29/09/17

ORDER

"VECTUS" Brand Name, PVC SWR Drainage Pipes (as per IS-13592) & SWR Fittings (as per IS- 14735), CPVC PIPES (as per IS-15778), PPR Pipes & Fittings (as per IS-15801), VECTUS WATER STORAGE TANK Blow Moulded Tanks and Rotational Moulded (IS-12701:1996) AND IS-10146 White Colour, Composite Pipes & Fittings (as per IS-15450), HDPE Pipes (as per IS-4984) Manufactured by VECTUS INDUSTRIES LIMITED, having its corporate office at Noida (U.P.) are approved for use in the ongoing construction works of MP Police Housing & Infrastructure Dev. Corp. Ltd. for two years from the date of issue of this order, unless otherwise delisted earlier due to quality issues.

[Signature]
(Sanjay Rana) 29.9.17

MANAGING DIRECTOR
MP POLICE HOUSING & INFRA. DEV. CORP.
BHOPAL

Endt. No./ 2014 / MPPHIDC/TS/SA/
COPY-

/BPL/17/ DATED - 29/09/17

- 1- Chief Project Engineer MPPHIDCL, Bhopal for information .
- 2- FA & CAO MPPHIDCL, Bhopal for information.
- 3- SE-I, II & III MPPHIDCL, Bhopal for information.
- 4- PE MPPHIDCL, Bhopal Divi - 1, 2 & 3, Indore Divi - 1 & 2, Ujjain, Gwalior Divi - 1 & 2,, Rewa, Jabalpur Divi - 1 & 2, Balaghat, Sagar, Technical for information.
- 5- Incharge Engineer, Technical Section MPPHIDCL, Bhopal for information & Office Record.
- 6- VECTUS INDUSTRIES LIMITED, having its Corporate Office at Noida (U.P.) for information.

[Signature]
(Sanjay Rana) 29.9.17

MANAGING DIRECTOR
MP POLICE HOUSING & INFRA. DEV. CORP.
BHOPAL



NBCC (INDIA) LIMITED

**CONSTRUCTION OF MULTI STORIED COMMERCIAL
SPACES AT GPRA COLONY AT NAUORJI NAGAR, NEW
DELHI ON DESIGN, ENGINEERING, PROCUREMENT
AND CONSTRUCTION (EPC) BASIS INCLUDING
OPERATION & MAINTENANCE**



**LIST OF APPROVED MAKES / BRANDS
(VOL. VII)**

Construction of Multi Storied Commercial Spaces at GPRA Colony at Nauroji Nagar, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance
List of Approved Makes

PIPE

S. No	Material	Approved Makes/Brands		
123.	M. S	Tata	Jindal Hissar	Jindal Star
		SAIL		
124.	G. I	Tata	SAIL	Jindal Hissar
125.	Flexible pipe connection	Resistoflex	Easyflex	Kanwal
126.	Refrigerant Piping	Mandev	Mex Flow	Mehta Tubes
127.	UPVC pipes	Supreme	Prince	Vectus

VALVES & STRAINER

S. No	Material	Approved Makes/Brands		
128.	Butterfly valve	Advance	AUDCO	L&T
		Zoloto		
129.	Motorized Butterfly Valve	Advance	AUDCO	L&T
		Zoloto		
130.	Balancing valve	Advance	Utam & VTM	L&T
131.	Non return valve	Advance	Utam & VTM	L&T
132.	Y-Strainer	Emerald	AUDCO	Kirloskar
		Zoloto		
133.	Pot Strainer	Rapidcool	Emerald	Sant
		AUDCO	Zoloto	
134.	Pressure gauge	Emerald	Anergy	Honeywell
135.	Thermometer	Emerald	Anergy	Honeywell
136.	Ball Valves	Rapidcool	Emerald	Zoloto
		AUDCO		

**Construction of Multi Storied Commercial Spaces at GPRA Colony at Nauroji Nagar, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance
List of Approved Makes**

S. No	Material	Approved Makes/Brands		
137.	PICB Valve	Danfoss	Frese	Ovenrop
		Spirotech	Reflex	
138.	Flow switch	Anergy	Siemens	Belimo
		Emerald		
139.	Expansion Tank	Anergy	Emerald	Spirotech
140.	Hot Water Generator	Sant	Emerald	Rapidcool

INSULATION

S. No	Material	Approved Makes/Brands		
141.	Glass Wool	U.P Twiga	Owen Corning	K-Wool
142.	Nitrile rubber	Armacell	K-flex	Aerocell
143.	Expanded polystyrene	SHI	Beardshell	Styrene packaging
144.	Vibration isolator pads	Resistoflex	Kanwal	Easyflex
145.	Paracoat BPC	Paramount	Pidilite	Indiana Polycoat

PLUMBING & SANITARY

S. No	Material	Approved Makes/Brands		
146.	G.I / M. S Pipe	Tata	Jindal (Hisar)	Surya Prakash
147.	G. I Fittings	Unik	KS	Zoloto
		R-Brand	Surya	
148.	SS Pipes	Jindal	Tata	VIGA
149.	HDPE Pipes	Reliance	Jain Irrigation	Oriplast
		Vertex	West Well	Supreme
		Vectus		

**Construction of Multi Storied Commercial Spaces at GPRA Colony at Nauroji Nagar, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance
List of Approved Makes**

S. No	Material	Approved Makes/Brands		
150.	DI Pipes	Electrosteel	Jindal	Tata Ductura
151.	DI Fittings	Kartar	Electrosteel	Kalinga
152.	CI Fittings	Neel	Kartar	Electrosteel
153.	CI Double flanged sluice valve	Kirloskar	Sondhi	Kejriwal
		IVC		
154.	Float Valve	IVC	Leader	Zoloto
		KSB		
155.	UPVC Pipe and Fittings	Astral	Supreme	Finolex
		Prince	AKG	Surya Prakash
		Vectus		
156.	Centrifugally Cast (Spun) Iron Pipes & Fittings	NECO	SKF	Electrosteel
157.	Centrifugally Cast (Spun) Iron (Class LA) Pipes	NECO	Electro Steel	TATA
158.	Centrifugally Cast (Spun) Ductile Iron Pipes & Fittings	Electro Steel	Jindal (Hissar)	Kalinga
159.	C. I Manhole covers, Frames & GI Gratings	NECO	RIF	BIC
		SKF		
160.	SFRC Manhole covers & gratings	KK	OCR	PARGATI
		T-CON		
161.	Gun Metal Valves, Globes	Kartar	Castle	Zoloto
162.	CP Brass Fittings	Jaquar	Kohler	Parryware
		Hindware	Grohe	

**Construction of Multi Storied Commercial Spaces at GPRA Colony at Nauroji Nagar, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance
List of Approved Makes**

S. No	Material	Approved Makes/Brands		
163.	Sanitary Fittings & Accessories	Hindware (Italian collection)	Kohler	ROCA
		Duravit	Somany (French Collection)	
164.	Water Meter	Prima	Zoloto	Leader
		Capstan		
165.	Brass Stop & Bib Cock	Zoloto	Sant	L&K
		Leader	Astral	
166.	PVC Pipe & Fittings	AKG	Supreme	Finolex
		Surya Prakash	Vectus	
167.	CPVC Pipes & Fittings	AKG	Astral	Supreme
		Finolex	Surya Prakash	Vectus
168.	Non Return Valve (Check valve) $\frac{1}{2}$ " to $1\frac{1}{4}$ "	Zoloto	Sant	Leader
169.	Brass Ferrules	Dhawan Sanitary Udyog	Kalsi	Annapurna
170.	Polythylene water storage tank	SINTEX	POLYCON	SPL
		VECTUS		
171.	Insulation for hot water pipes	KAIFLEX	ARMAFLEX	CAREFLEX
		Lloyd		
172.	Insulation for external / exposed hot water pipes	KAIFLEX	ARMAFLEX	CAREFLEX
173.	Pipe protection for external water supply pipes	PYPKOTE	ARMAFLEX	MAKPOLYKOTE
174.	Stainless Steel Sink	Neelkanth	Nirali	Jayna
		Cera		

**Construction of Multi Storied Commercial Spaces at GPRA Colony at Nauroji Nagar, New Delhi on Design, Engineering, Procurement and Construction (EPC) basis including operation & Maintenance
List of Approved Makes**

S. No	Material	Approved Makes/Brands		
237.	Pressure Gauge	FIEBIG	H. GURU	Dan foss
238.	Dosing system	MILTON ROY	ASIALMI	GRUNDFOS
239.	Liquid Level Controllers / Liquid Level Indicator	ADVANCE	HONEY WELL	DANFOSS
240.	Filter / Softner	Ion Exchange	Rennaisance Aqua	PENTAIR
		WATCON		
241.	Salt Saturator	Ion Exchange	Rennaisance Aqua	Pentair
		Watcon		
242.	Water Meter	Kent	Marshall	Sant

STP

S. No	Material	Approved Makes/Brands		
243.	G. I Pipes	TATA	JINDAL HISSAR	Zenith
244.	G. I Fittings	UNIK	Zoloto	SS
245.	UPVC pipes	SUPREME	JAIN PIPES	AKG
		PRINCE	VECTUS	
246.	UPVC pipe Pressure Fittings	CEPEX	ASTRAL	AKG
		VECTUS		
247.	Pre-Fabricated Structural supports and clamps	CHILLY	EASYFLEX	CAMRY
248.	Paints	ASIAN PAINTS	BERGER	NEROLAC
249.	Gunmetal Fullway Valve	ZOLOTO	SANT	CASTLE
250.	Ball Valve	ARCO	CIM	CASTLE
251.	Butterfly Valve	KSB	SKS	ZOLOTO



**Material Test Certificates from
Various Govt./Semi-Govt. Institutions**



सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी

(रसायन एवं पेट्रोसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

जी-सेक्टर, गोविन्दपुरा औद्योगिक क्षेत्र, भोपाल-462 023

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Central Institute of Plastics Engineering & Technology

(Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India)

'G' Sector, Govindpura Industrial Area, Bhopal - 462 023 (M. P.)

Phone : 2687454, 2688288 Fax : 91-755-2689041 E-mail : cipet.bhopal@gmail.com

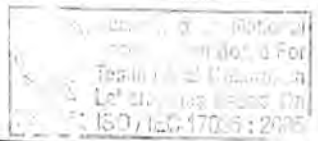
Series: **D**

PLASTIC TESTING CENTRE
TEST CERTIFICATE

क्र. No. 10685

Issued to

M/s Vectus Industries Ltd.
Plot No. 41/42 Industrial Area,
Banmore, Dist - Morena (M.P.)



Test Report No. 19138 A

Date: 27.01.2017

Page No. 1 of 3

TEST REPORT AS PER IS:15450-2004 with latest Amendment 1 & 2

PART - A

PARTICULARS OF SAMPLE SUBMITTED

Sample details: Polyethylene/Aluminum/PE Composite Pressure Pipes For Hot and Cold Water.

- As State by Party

Your Ref. No : Vectus/Works/CIPET/2016-17

Date: 06.01.2017

Grade/Variety/Type/Size/Class	: 1216mm (Outer Black / Inner White in colour)
Batch No./ Lot No.	: 27121611
Date of manufacturing	: Nil
Date of sample received	: 09.01.2017
Test Duration	: 09.01.2017 to 27.01.2017
Qty of sample received	: 20 Meter long
Condition of receipt of sample	: Good
Any other details	: Nil

Note:

1. This report, in full or part, shall not be published, advertised, used for any legal action, unless prior permission has been secured.
2. This test report is only for the sample tested.

PART - B :

SUPPLEMENTRY INFORMATIONS

- | | | | |
|----|--|---|-----------------------|
| a) | Reference to sampling procedure wherever applicable | : | Supplied by the party |
| b) | Supporting documents for the measurements taken and Results derived like graphs, tables, sketches and/or Photographs as appropriate to test report, if any (to be attached). | : | As given in Part-C |
| c) | Deviation from the test methods as prescribed in Relevant work instruction, if any | : | Nil |

निरंतर 2 Contd.... 2

Subha Jayaraman - (T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Abhishek Rajvansh - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

टेस्ट रिपोर्ट नं. 19138 A

दिनांक : 27.01.2017

पेज नं. 2 of 3

PART - C :					
TEST REPORT AS PER IS:15450-2004 with latest Amendment I & 2					
S.No	Clause	Name of the test	Unit	Test value obtained	Specified Requirement
01.	7.0	Colour of pipe	-	Black	Pipe shall be black in colour.
02.	8.0 8.1 Table-2	<u>DIMENSIONS OF PIPE</u> a) Outside diameter i. Tolerance ii. Max. Out-of-Roundness (Ovality)	mm mm mm	16.10 (+) 0.10 0.34	16 (+)0.30, (-)0.0 upto 25mm/ (+) 0.50, (-)0.00 for 32mm OD and above 0.40
03.	8.1 Table-2	b) <u>Wall thickness</u> Minimum Maximum c) <u>Outer Layer Thickness (Min)</u>	mm mm mm	1.82 1.96 0.87	1.75 2.00 0.40
04.	8.3	Length of Straight Pipe	mtr	16.10	Should be 3 to 20 mtr.
05.	9.0	<u>Visual Appearance</u>	-	Conforms	Internal & External surface of pipes shall be smooth, clean and free from groovings and other defects. The ends shall be cleanly cut and square with axis of pipe
06.	10.1	Density at 23°C	kg/m ³	944.64	940.4 to 946.4 at 23° C
07.	10.2	Melt Flow rate At 190°C/5 kg	gms/10 min	0.54	0.4 to 0.8
08.	10.3	(a) Carbon black content (b) Carbon black dispersion	% --	2.48 Conforms	2.0 to 3.0 Shall be satisfactory
09.	10.4	Pigment Dispersion	grade-	Conforms	Less than or equal to 3
10.	10.5	Adhesion Test	-	Conforms	There shall be no de-lamination of PE and Al either on bore side or outside
	10.6	Apparent Tensile Strength of Pipe	N	4209	2100 (Min)
11.	10.7	Minimum Burst Pressure	Mpa	No burst upto 6.0 Mpa	6 Mpa

Contd...3

Subha
Subha Jayaraman - (T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Abhishek Rajvansh - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

सिपेट, भोपाल

Continuation Sheet

CIPET, BHOPAL

टेस्ट रिपोर्ट नं. 19138 A

दिनांक: 27.01.2017

पेज नं. 3 of 3

PART - C :					
TEST REPORT AS PER IS:15450-2004 with latest Amendment 1 & 2					
S.No	Clause	Name of the test	Unit	Test value obtained	Specified Requirement
12.	10.8 Table-5	<u>Hydraulic Characteristics</u> (i) 3.0 MPa Induced stress for 1 hour at 20°C	-	Conforms	Pipe shall show no sign of localised swelling, leakage or weeping and shall not burst during prescribed test duration
		<u>Hydraulic Characteristics</u> (ii) 2.5 MPa Induced stress for 10 hours at 60°C	-	Conforms	Pipe shall show no sign of localised swelling, leakage or weeping and shall not burst during prescribed test duration
13.	11.1 11.1.1 Table-6	<u>Hydraulic Characteristics</u> (i) Type Test at 1.2 MPa Induced stress for 170 hours at 95°C	-	Conforms	Pipe shall show no sign of localized swelling, leakage or weeping and shall not burst during prescribed test duration.
14.	11.1.2	Overall Migration Test	mg/litre mg/dm ²	54.0 1.35	60 (max.) 10 (max.)
15.	11.1.3	Thermal Stability	Minutes	Conforms	Shall be minimum 20 minutes
PART - D :					
Remarks : Nil					

Note:

1. Selection of samples for individual test have been done in accordance with respective clauses of IS: 15450-2004 with latest Amendment 1 & 2.
2. Details of test sub-contracted: Nil
3. Remnant samples will be disposed after 3 months from the date of issue of test report.

Subha
Subha Jayaraman - (T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Abhishek
Abhishek Rajvansh - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory



सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी

(रसायन एवं पेट्रोसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

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Central Institute of Plastics Engineering & Technology

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'G' Sector, Govindpura Industrial Area, Bhopal - 462 023 (M. P.)

Phone : 2687454, 4028629 Fax : 91-755-2689041 E-mail : cipet.bhopal@gmail.com



Certificate No.: TC-6378

Series: **D**

**PLASTIC TESTING CENTRE
TEST CERTIFICATE**

क्र. No. **13375**

Issued to

M/s Vectus Industries Ltd. Unit-II

Plot No. 41/42 Industrial Area,

Bamnore, Dist - Morena (M.P)



Test Report No. 20607

Date: 27.03.2018

Page No. 1 of 3

TEST REPORT AS PER IS: 13592:2013

PART-A

PARTICULARS OF SAMPLE SUBMITTED

नमूना विवरण / Sample details : UPVC pipe for soil and waste discharge system for Inside & Outside buildings including ventilation and rainwater system- as stated by party

आपका संदर्भ क्रमांक : Vectus/Works/2017-18/SJ/427

दिनांक: 04.09.2018

ग्रेड /वैरिटी/टाईप/ साईज /क्लास/

Grade/Variety/Type/Size/Class

: SWR Pipe 110 mm, Type-A

बैच नं. /Batch No.

: 31081711

उत्पादकता की दिनांक /Date of manufacturing

: Nil

प्राप्त नमूने की दिनांक /Date of sample received

: 11.09.2017

परीक्षण समय /Test Duration

: 26.10.2017 to 26.03.2018

नमूने की मात्रा /Qty of sample received

: 1 mtr x 4 Nos Plain Pipe + 1 mtr x 2 Nos socketed pipes

प्राप्त नमूने की स्थिति /Condition of receipt of sample

: Good

अन्य विवरण/Any other details

: Nil

Note:

1. This report, in full or part, shall not be published, advertised, used for any legal action, unless prior permission has been secured.
2. This test report is only for the sample tested.

PART - B

SUPPLEMENTRY INFORMATIONS

- | | | | |
|----|--|---|-----------------------|
| a) | Reference to sampling procedure wherever applicable | : | Supplied by the party |
| b) | Supporting documents for the measurements taken and Results derived like graphs, tables, sketches and/or Photographs as appropriate to test report, if any (to be attached). | : | As given in Part-C |
| c) | Deviation from the test methods as prescribed in Relevant work instruction, if any | : | Nil |

निरंतर2 Contd....2

Subha Jayaraman
Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर /Authorised Signatory

Dr. Sandesh Kumar Jain
Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर /Authorised Signatory

सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी

(रसायन एवं पेट्रो रसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

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Central Institute of Plastics Engineering & Technology

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'G' Sector, Govindpura Industrial Area, Bhopal - 462 023 (M. P.)

Phone : 2687454, 4028629 Fax : 91-755-2689041 E-mail : cipet.bhopal@gmail.com



Certificate No.: TC-6378

Series: **D**

PLASTIC TESTING CENTRE
TEST CERTIFICATE

क्र. No. **13214**

Issued to

M/s Vectus Industries Ltd.
Unit-1, Plot No. 22,26/27 Industrial Area,
Banmore Dist - Morena (M.P.)

Test Report No. 20522

Date : 09.03.2018

Page No. 1 of 2

TEST REPORT AS PER IS:12701:1996 with latest Amendment 1 & 2

PART-A

PARTICULARS OF SAMPLE SUBMITTED

नमूना विवरण / Sample details : Rotational Moulded Polyethylene Water Storage Tanks.
- as stated by party

Your Ref. No: Vectus/Works/2017-18/Sj/620
Date : 22.01.2018

टाईप ऑफ टैंक / Type of tank : Water Storage Tank
नेट केपेसिटी / Net Capacity : 1000 ltrs, double layer
बैच नं०/Batch No : Nil
उत्पादन की दिनांक / Date of manufacturing : Nil
प्राप्त नमूने की मात्रा / Quantity of sample received : 01 No. Tank
नमूना प्राप्ति दिनांक / Date of sample received : 17.02.2018
परीक्षण समय / Test Duration : 22.02.2018 to 08.03.2018
प्राप्त नमूने की स्थिति / Condition of receipt sample : Good
अन्य विवरण / Any other details : Nil

Note:

1. This report, in full or part, shall not be published, advertised, used for any legal action, unless prior permission has been secured.
2. This test report is only for the sample tested.

PART-B

SUPPLEMENTARY INFORMATIONS

- a) Reference to sampling procedure wherever applicable : Supplied by the party
- b) Supporting documents for the measurements taken and : As given in Part-C
Results derived like graphs, tables, sketches and/or
Photographs as appropriate to test report, if any
(to be attached).
- c) Deviation from the test methods as prescribed in : Nil
Relevant work instruction, if any

निर्देश 2 Contd...2

Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory

सिपेट, भोपाल



Certificate No.: TC-6378

Continuation Sheet



CIPET, BHOPAL

टेस्ट रिपोर्ट नं.20522

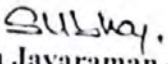
दिनांक 09.03.2018


पेज नं. 2 of 2

PART-C						
TEST RESULTS AS PER IS:12701-96 with latest Amendment No.1 & 2						
S.No	Clause	Name of the test	Test Method	Unit	Test value obtained	Specified Requirement
01.	7.6	Overall migration	IS:9845-1998	mg/ltr mg/dm ²	34.0 3.09	60 (max) 10 (max)
PART-D						
Remarks- Nil						

Note :

1. Selection of samples for individual test have been done in accordance with respective clauses of IS: 12701-1996 with latest amendment 1 & 2.
2. Details of test sub-contracted: Nil
3. Remnant samples will be disposed after 3 months from the date of issue of test report.


Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory


Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory



सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी

(रसायन एवं पेट्रोसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

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'G' Sector, Govindpura Industrial Area, Bhopal - 462 023 (M. P.)

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Certificate No.: TC-6378

Series: **D**

**PLASTIC TESTING CENTRE
TEST CERTIFICATE**

क्र. No. **13345**

Issued to

M/s Vectus Industries Ltd. Unit-II
Plot No. 41/42 Industrial Area,
Banmore Dist-Morena (M.P.)

Test report No. 20580

Date: 22.03.2018

Page No. 1 of 2

TEST REPORT AS PER IS: 4985 - 2000 with Amendment No. 1, 2, 3, 4 & 5

PART - A

PARTICULARS OF SAMPLE SUBMITTED

नमूना विवरण / Sample details : Unplasticized PVC Pipes for Potable Water Supplies
for effect of water test only - As stated by party

आपका संदर्भ क्रमांक : Letter

दिनांक : 10.01.2018

ग्रेड / वेरिटी/टाईप/ साईज /क्लास/

Grade/Variety/Type/Size/Class

: 40 mm, Class-3

बैच नं. /Batch No./Batch No.

: 10011851

उत्पादकता की दिनांक /Date of manufacturing

: Nil

प्राप्त नमूने की दिनांक /Date of sample received

: 21.02.2018

परीक्षण समय /Test Duration

: 23.02.2018 to 20.03.2018

नमूने की मात्रा /Qty of sample received

: 1 mtr. x 01 No.

प्राप्त नमूने की स्थिति /Condition of receipt of sample

: Good

अन्य विवरण/Any other details

: Nil

Note:

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2. This test report is only for the sample tested.

PART - B

SUPPLEMENTRY INFORMATIONS

- | | | | |
|----|--|---|-----------------------|
| a) | Reference to sampling procedure wherever applicable | : | Supplied by the party |
| b) | Supporting documents for the measurements taken and Results derived like graphs, tables, sketches and/or Photographs as appropriate to test report, if any (to be attached). | : | As given in Part-C |
| c) | Deviation from the test methods as prescribed in Relevant work instruction, if any | : | Nil |

निरंतर2 Contd....2

Subha Jayaraman - (S.T.O.)

अधिकृत हस्ताक्षर /Authorised Signatory

Dr. Sandesh Kumar Jain - Director & Head

अधिकृत हस्ताक्षर /Authorised Signatory

सेन्ट्रल इन्स्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एवं टेक्नॉलाजी

(रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

बी-२७, अमांसी इन्डस्ट्रियल एरिया, लखनऊ-२२६ ००८

फोन : २४३६६१०, २४३७६४५-६

फैक्स : ६१-५२२-२४३६२२७



CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

Ministry of Chemical & Fertilizers, Govt. of India
B-27, Amausi Industrial Area, Lucknow - 226 008

e-mail : cipetiko@satyam.net.in

Phone : 2436910, 2437645-6

FAX : 91-522-2436227

TEST CERTIFICATE



NO.

B- 0978

Date : 10.10.2011

Issued to : M/s Vectus Industries Ltd.,
Plot No.412-414,
Shri Developers Industrial Estate,
Mahuakhera Ganj, Kashipur,
(US Nagar) U.K.-244 713

Your Ref.No. & Date : Vectus/Work/CIPET/2011-12

dated : 25.07.2011

TEST REPORT AS PER STANDARD AND AMEND WITH DATE : IS : 15778-2007

TEST REPORT NO :0674

Page 1 of 2

a)	Name of the sample	CPVC Compound (for 15 mm CPVC Pipe), CPVC Pipe, Socket, Elbow & Solvent Cement.
b)	Grade / Variety / type / size / class	KANEKA CPVC H829
c)	Declared value, if any &	---
d)	Code No	---
e)	Batch No. & Date of Manufacture	---
f)	Quantity	1 Kg. CPVC Compound with CPVC Pipe- 300mm X 10 Pcs. (B No.-27061111), Socket-7 Nos., elbow-4 Nos. & Solvent cement (Orange)
g)	Mode of Packing	Wrapped in Cartoon box
h)	Sealed or not	Not sealed.
i)	Any other information	Payment received on 27.07.2011
j)	Date of receipt of sample	27.07.2011
k)	Date of completion of testing	10.10.2011

PART - B :- SUPPLEMENTARY INFORMATIONS

a)	Reference to sampling procedure	Not Applicable.
b)	Supporting document for the measurement taken & result derived	Not Applicable.
c)	Deviation from the test method as prescribe in relevant work instructions, if any	Not Applicable.

सेन्ट्रल इन्स्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एवं टेक्नॉलाजी

(रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

बी-२७, अमौसी इन्डस्ट्रियल एरिया, लखनऊ-२२६

फोन : २४३६६१०, २४३७६४५-६

फैक्स : ६१-५२२-२४३६२२७



Approved by National
Metrology Commission Board for
Testing And Calibration on
Certificate No. T-0231 &
T-0232 ISO/IEC 17025 : 2005

TEST CERTIFICATE

CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

Ministry of Chemical & Fertilizers, Govt. of India

B-27, Amausi Industrial Area, Lucknow - 226 008

e-mail : cipetlko@satyam.net.in

Phone : 2436910, 2437645-6

FAX : 91-522-2436227

NO.

B - 0978

Date : 10.10.2011

PART - C :- TEST RESULTS

TEST REPORT NO. 0674

Page 2 of 2

S. No	Clause	Name of the test	Testing Method	Unit	Specified Value	Test Value Obtained
1.	6.3.1	Chlorine Content	IS: 15778-2007	%	Shall not be less than 60.0	62.24
2.	8.1.5.	Appearance	IS-15225-02	--	Should be satisfactory	Satisfactory
3.	8.2.1	Vicat Softening Point	IS-15225-02	°C	110 ± 2	111.2
4.	8.2.2	Charpy Test	IS-15225-02	KJ/m ²	> 4.0 to 8.0	6.4
5.	8.2.3	Tensile Strength	IS-15225-02	MPa	> 45 to 55	52.0
6.	8.2.4	Tensile Modulus	IS-15225-02	MPa	> 2000 to 2500	2385.3
7.	8.3	Ash Content	IS-15225-02	%	6 (Max.)	3.40
8.	6.3.3	Density	IS: 15778-2007	Kg/m ³	Shall be between 1450 Kg/m ³ & 1650 Kg/m ³	1460.0
9.	6.3.2	Verification of the Malfunction temperature (At 1000 hrs.)	IS: 15778-2007	--	Shall not leak during the prescribed test	Passed

PART - D : REMARKS

NIL

AUTHORIZED SIGNATORY

NOTE :

CENTRE HEAD

- The results relate only to the items tested as supplied by the party.
- The test certificate shall not be reproduced in full except without the written approval of the laboratory.



सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी

(रसायन एवं पेट्रोसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

जी-सेक्टर, गोविन्दपुरा औद्योगिक क्षेत्र, भोपाल-462 023

फोन : 2687454, 4028629 फैक्स : 91-755-2689041 ई-मेल : cipet.bhopal@gmail.com

Central Institute of Plastics Engineering & Technology

(Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India)

'G' Sector, Govindpura Industrial Area, Bhopal - 462 023 (M. P.)

Phone : 2687454, 4028629 Fax : 91-755-2689041 E-mail : cipet.bhopal@gmail.com Certificate No.: TC-8372



Series: **D**

PLASTIC TESTING CENTRE
TEST CERTIFICATE

क्र. No. 12815

Issued to

M/s Vectus Industries Ltd.

Plot No. 41/42 Industrial Area,

Banmore, Dist - Morena (M.P.)



टेस्ट रिपोर्ट नं. 20289 A

दिनांक: 20.12.2017

पेज नं. 1 of 4

TEST REPORT AS PER IS: 4984 - 2016

PART - A

PARTICULARS OF SAMPLE SUBMITTED

नमूना विवरण / Sample details : High Density Polyethylene Pipes for Potable Water Supplies.

As stated by party

आपका संदर्भ क्रमांक : Nil

दिनांक : 04.09.2017

ग्रेड / वेरिटी/टाईप/ साईज /क्लास/

Grade/Variety/Type/Size/Class

: PE63, PN 6, SDR 13.6 DN 32mm

लोट नं. /Lot No./Batch No.

: 0109173I

उत्पादन की तिथि /Date of manufacturing

: Nil

प्राप्त नमूने की तिथि /Date of sample received

: 25.10.2017

परीक्षण समय /Test Duration

: 25.10.2017 to 20.12.2017

नमूने की मात्रा /Qty of sample received

: 01 mtr. x 10 Nos

प्राप्त नमूने की स्थिति /Condition of receipt of sample

: Good

अन्य विवरण/Any other details

: Nil

Note:

1. This report, in full or part, shall not be published, advertised, used for any legal action, unless prior permission has been secured.
2. This test report is only for the sample tested.

PART - B

SUPPLEMENTRY INFORMATIONS

- | | | |
|----|--|-------------------------|
| a) | Reference to sampling procedure wherever applicable | : Supplied by the party |
| b) | Supporting documents for the measurements taken and Results derived like graphs, tables, sketches and/or Photographs as appropriate to test report, if any (to be attached). | : As given in Part-C |
| c) | Deviation from the test methods as prescribed in Relevant work instruction, if any | : Nil |

निरंतर ... 2 Contd....2

Subha Jayaraman - (S.T.O.)

अधिकृत हस्ताक्षर / Authorised Signatory

Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory



PART - C					
TEST REPORT AS PER IS: 4984 - 2016					
S.No	Clause	Name of the test	Unit	Test value obtained	Specified Requirement
01.	6.2	Colour	-	Conforms	Shall be black with blue identification strip
02.	6.2.1	Identification of stripes			
		Width of stripes	mm	Conforms 4.0	Min. of three longitudinal stripes of minimum width of 3 mm in blue color, circumferentially distributed
		Depth of stripes	mm	0.18	Shall not preferably be more than 0.2 mm in depth for wall thickness up to 10 mm and 0.5 mm beyond 10 mm
03.	7.1	a. Visual appearance	-	Conforms	The internal and external surfaces of pipe shall be smooth, clean and free from grooving and other defects. The ends shall be cleanly cut and shall be square with axis of the pipe to within the tolerance given below and free from deformity. Slight shallow longitudinal grooves or irregularities in the wall thickness shall be permissible, provided that the wall thickness remains within the permissible limits.
		b. Maximum out of square of pipe end	mm	0.37	2.0
04.	7.2	Length	mtr	1	The length of straight pipe shall be 5m to 20m as agreed to between the manufacturer and purchaser. Short lengths of 3 m (minimum) up to the maximum of 10 percent of the total supply may be permitted.
05.	7.4	Dimension of pipe			
		Table-3 Outside diameter	mm	32.08	32.0
		Minimum den	mm	32.20	32.3
		Maximum den	mm	0.12	1.3
06.	Table-4	Wall thickness			
		Minimum	mm	2.61	2.4
		Maximum	mm	2.70	2.7

जिस्तार 3 Contd....3

Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Dr. Sandesh Kumar Jais - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory



PART - C					
TEST REPORT AS PER IS: 4984 - 2016					
S.No	Clause	Name of the test	Unit	Test value obtained	Specified Requirement
07.	8.0 Table- 5	Hydraulic characteristics			
08.	8.1.1 (Annex- F)	Internal Pressure creep rupture test of pipe			
		i) Type test at 6.9 MPa induced stress for 100 hours at 27° C Pressure : 11.4 kg/cm ²	-	Conforms	Pipe shall show no sign of localized swelling, leakage or weeping and shall not burst during the prescribed test duration
		ii) Type test at 3.5 MPa induced stress for 165 hours at 80° C Pressure : 5.7 kg/cm ²	-	Conforms	Pipe shall show no sign of localized swelling, leakage or weeping and shall not burst during the prescribed test duration
		iii) Type test at 3.2 MPa induced stress for 1000 hours at 80° C Pressure : 5.2 kg/cm ²	-	Conforms	Pipe shall show no sign of localized swelling, leakage or weeping and shall not burst during the prescribed test duration
		iv) Acceptance test at 3.8 MPa induced stress for 48 hours at 80° C Pressure : 6.2 kg/cm ²	-	Conforms	Pipe shall show no sign of localized swelling, leakage or weeping and shall not burst during the prescribed test duration
10.	8.1.2 (Annex- E)	Internal Pressure creep rupture test of pipe joints @ 3.8 MPa induced stress for 48 hours at 80° C	-	NA	The pipe joint under test shall show no signs of localized swelling, leakage or weeping and shall not burst during the prescribed test period
11.	8.2 (Annex-F)	Longitudinal Reversion test	%	1.4	Shall not be greater than 3 %
12.	8.3	Carbon Black Content	%	2.23	Shall be within 2.5 ± 0.5 %
		Carbon Black Dispersion	-	Satisfactory	Shall be satisfactory
13.	8.4	Melt flow rate	g/10 min	1.08	Shall be between 0.2 to 1.1 g/10min.
14.	8.5 (Annex-B)	Oxidation Induction Time	-	>20	Shall be not less than 20 min.
15.	8.6	Overall migration test	mg/l mg/dm ²	34.0 3.40	60 (max) 10 (max)
16.	8.7	Density	kg/m ³	950.85	Shall be between 930.0 to 960.0
17.	8.8 (Annex-G)	Tensile strength for butt-fusion	-	NA	Test specimens prepared by punching/machining from pipe butt -fusion sample preferably 110 mm Dia/SDR 11 shall be ductile failure. If the sample shows brittle fail the test may be considered as a failure.

निरंतर ... 4 Contd... 4

Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory

सिपेट, भोपाल



Continuation Sheet

CIPET, BHOPAL

टेस्ट रिपोर्ट नं. 20289 A

दिनांक. 20.12.2017

पेज नं. 4 of 4

PART - C					
TEST REPORT AS PER IS: 4984 - 2016					
S.No	Clause	Name of the test	Unit	Test value obtained	Specified Requirement
18.	8.9 (Annex-H) Table-6	Elongation at break	%	391.5	> 350 %
19.	8.10 (Annex-F)	Slow Crack Growth Rate for 500 hrs. at 80°C.	-	NA	Pipe shall show no sign of localized swelling, leakage or weeping and shall not burst during the prescribed test duration
PART - D					
Remarks: NA - Not Applicable					

Note:

1. Selection of samples for individual test have been done in accordance with respective clauses of IS: 4984-2016.
2. Details of test sub-contracted: Nil
3. Remnant samples will be disposed after 3 months from the date of issue of test report.

Subha Jayaraman
Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Dr. Sandesh Kumar Jain
Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory



सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी

(रसायन एवं पेट्रोसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

जी-सेक्टर, गोविन्दपुरा औद्योगिक क्षेत्र, भोपाल-462 023

फोन : 2687454, 4028629 फैक्स : 91-755-2689041 ई-मेल : cipet.bhopal@gmail.com

Central Institute of Plastics Engineering & Technology

(Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India)

'G' Sector, Govindpura Industrial Area, Bhopal - 462 023 (M. P.)

Phone : 2687454, 4028629 Fax : 91-755-2689041 E-mail : cipet.bhopal@gmail.com



Certificate No.: TC-6378

Series: **D**

PLASTIC TESTING CENTRE
TEST CERTIFICATE

क्र. No. 13122

Issued to
M/s Vectus Industries Ltd.
Plot No. 26 Sector 2 IIE Sidcul,
Haridwar - 249403 (U.K.)

Test Report No -20465
Date: 15.02.2018
Page No. - 1 of 3

TEST REPORT AS PER IS: 15801:2008 with latest Amendment 1

PART - A

PARTICULARS OF SAMPLE SUBMITTED

नमूना विवरण / Sample details: Polypropylene Random Copolymer Pipes,
for Hot and cold water supply - As stated by party.

Your Ref: Vectus/Works/2017-18/SJ/425 & E-mail
Vectus/QA/CIPET/1013/2017-2018
Date : 13.10.2017, 20.11.2017

ग्रेड / वैरीटी / टाईप / साईज / क्लास / Grade/Variety/Type/Size/Class	: PPR Pipe 25 mm SDR-6 (PN-20)
बैच नं. / Batch No.	: 1310174I
उत्पादकता की दिनांक / Date of manufacturing	: Nil
प्राप्त नमूने की दिनांक / Date of sample received	: 21.11.2017
परीक्षण समय / Test Duration	: 21.11.2017 to 14.02.2018
नमूने की मात्रा / Qty of sample received	: 1 mtr x 10 nos
प्राप्त नमूने की स्थिति / Condition of receipt of sample:	Good
अन्य विवरण/Any other details	: Nil

Note:

1. This report, in full or part, shall not be published, advertised, used for any legal action, unless prior permission has been secured.
2. This test report is only for the sample tested.

PART - B

SUPPLEMENTRY INFORMATIONS

a)	Reference to sampling procedure wherever applicable	: Supplied by the party
b)	Supporting documents for the measurements taken and Results derived like graphs, tables, sketches and/or Photographs as appropriate to test report, if any (to be attached).	: As given in Part-C
c)	Deviation from the test methods as prescribed in Relevant work instruction, if any	: Nil

Subha Jayaraman - (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

निर्देशक Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory

सिपेट, भोपाल



Certificate No.: TC-6378

Continuation Sheet

CIPET, BHOPAL

टेस्ट रिपोर्ट नं. 20465

दिनांक 15.02.2018

पेज नं. 2 of 3

PART-C						
Test Results as per IS-15801-2008 with latest Amendment 1						
S. No	Clause	Name of the test	Testing method	Unit	Test value obtained	Specified Requirement
1.	6.6 (ii)	Overall Migration	IS:9845 & IS:10910	mg/ltr	36.8	60.0 (max.)
2.	7.1 Table-1	Dimension of Pipe				
		a) Out side diameter		mm	25.24	25.0
		b) Tolerance	IS:15801-2008	mm	(+) 0.24	(+) 0.3
		c) Ovality (Max.)		mm	0.17	1.2
	7.2 Table-2	Wall thickness of pipe	IS:15801-2008			
		Min		mm	4.45	4.20
		Max		mm	4.61	4.90
	7.4	Length of Straight pipe	IS:15801-2008	mm	1000	Tolerance (+) 10
3.	8.0	Visual Appearance	IS:15801-2008	---	Conforms	The internal & external surface of pipes shall smooth, clean & free from grooving & other defects. Ends shall be cleanly cut & square with axis of pipes.
4.	Hydraulic Characteristics (Internal Creep Rupture Test)					
	9.1	i) Type Test At 3.8 Mpa induced stress for 165 Hrs at 95° C Pressure : 15.65 kg/cm ²	IS:12235 Pt.8/sec.1	--	Conforms	Pipes under test shall show no sign of localized swelling leakage or weeping & shall not burst during the prescribed tests duration.
		ii) Type Test At 3.5 Mpa induced stress for 1000 hrs at 95 °C Pressure : 14.41 kg/cm ²	IS:12235 Pt.8/sec.1	--	Conforms	Pipes under test shall show no sign of localized swelling leakage or weeping & shall not burst during the prescribed tests duration.
		iii) Acceptance test at 16 Mpa induced stress for 1 hour at 20°C Pressure : 65.90 kg/cm ²	IS:12235 Pt.8/sec.1	--	Conforms	Pipes under test shall show no sign of localized swelling leakage or weeping & shall not burst during the prescribed tests duration
		iv) Acceptance test at 4.3 Mpa induced stress for 22 hours at 95 °C Pressure : 17.7 kg/cm ²	IS:12235 Pt.8/sec.1	--	Conforms	Pipes under test shall show no sign of localized swelling leakage or weeping & shall not burst during the prescribed tests duration
5.	9.3	Reversion Test	IS:15801 Pt. 5/sec. 1	%	1.28	Should not be greater than 2%
6.	9.4	Impact Strength (Charpy Impact Test) 15], Velocity 3.8 m/s	IS:13360 Part 5/sec 5	%	Passed	Number of failure shall not exceed 10 % of the specimen tested.

Contd.....3

Subha Jayaraman (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory

सिपेट, भोपाल



Certificate No.: TC-6378

Continuation Sheet

CIPET, BHOPAL

टेस्ट रिपोर्ट नं. 20465

दिनांक 15.02.2018

पेज नं. 3 of 3

PART-C						
Test Results as per IS-15801-2008 with latest Amendment 1						
S. No.	Clause	Name of the test	Testing method	Unit	Test value obtained	Specified Requirement
7.	9.5	Density of Pipe at 27°C	IS:12235 Pt.14	kg/m ³	904.0	900.0 to 910.0 (Except black pipe) 900.0 to 925 (for black pipe)
8.	9.6	Melt Flow Rate At 230°C with load of 2.16 kgf	IS-13360- Pt -4/ sec. 01	gm/10 min.	0.30	Shall be ≤ 0.5 from a composite sample
9.	9.9	Opacity	IS:12235 Pt.3	%	0.10	Shall not transmit more than 0.2% of visible light
PART-D						
Remarks: Nil						

Note:

1. Selection of samples for individual test have been done in accordance with respective clauses of IS: 15801-2008 with latest Amendment 1.
2. Details of test sub-contracted: Nil
3. Remnant samples will be disposed after 3 months from the date of issue of test report.

Subha Jayaraman- (S.T.O.)
अधिकृत हस्ताक्षर / Authorised Signatory

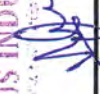


Dr. Sandesh Kumar Jain - Director & Head
अधिकृत हस्ताक्षर / Authorised Signatory



Inspection Certificates

JOINT INSPECTION DIMENSION REPORT FOR CPVC FITTINGS AT VECTUS IND LTD											
STANDARD REFERENCE- AS PER ASTM D 2846											
JOINT INSPECTION DIMENSIONS REPORT											
NAME OF DEPARTMENT		: Karnataka Urban water supply and drainage board									
NAME OF CONSULTANT		: M/s IPE GLOBAL LTD									
NAME OF PROJECT		: Mandya WSS Project.									
MANUFACTURER & SUPPLIER DETAIL		: Vectus Industries limited									
DATE OF INSPECTION		:									
SIZE		: CPVC ELBOW 15 MM									
BATCH NO		:									
QUANTITY		: 74000 NO.									

Sr.N o.	Socket entrance dia in mm		Socket bottom dia in mm		Socket length in mm	Inner diameter in mm	WALL THICKNESS in mm			VISUAL APPERANCE
	min	max	min	max			Soc entr	Soc bottom	Body	
	16.00	16.16	15.64	15.80	12.70	12.42	1.73	2.59	3.25	
1	16.05	16.12	15.66	15.80	12.75	12.42	1.73	2.61	3.26	Satisfactory
2	16.10	16.16	15.67	15.80	12.78	12.45	1.85	2.62	3.27	Satisfactory
3	16.11	16.15	15.72	15.79	12.75	12.46	1.76	2.64	3.26	Satisfactory
4	16.11	16.15	15.72	15.79	12.78	12.42	1.78	2.65	3.25	Satisfactory
5	16.10	16.16	15.67	15.79	12.75	12.45	1.76	2.65	3.27	Satisfactory
6	16.10	16.16	15.66	15.79	12.78	12.46	1.74	2.61	3.29	Satisfactory
7	16.12	16.15	15.67	15.79	12.75	12.42	1.76	2.62	3.26	Satisfactory
8	16.05	16.15	15.72	15.79	12.78	12.45	1.78	2.64	3.27	Satisfactory
9	16.07	16.15	15.72	15.80	12.75	12.46	1.76	2.65	3.26	Satisfactory
10	16.11	16.15	15.68	15.80	12.78	12.42	1.74	2.65	3.25	Satisfactory

Marking- Q.A. Incharge Vectus Ind Ltd.	VECTUS INDUSTRIES LIMITED 	IPE GLOBAL LTD PDMC AMRUT, KARNATAKA REVIEW:  WITNESS: 
---	---	---

JOINT INSPECTION DIMENSION REPORT FOR CPVC FITTINGS AT VECTUS IND LTD														
STANDARD REFERENCE- AS PER ASTM D 2846														
JOINT INSPECTION DIMENSIONS REPORT														
NAME OF DEPARTMENT		: Karnataka Urban water supply and drainage board												
NAME OF CONSULTANT		: M/s IPE GLOBAL LTD												
NAME OF PROJECT		: Mandya WSS Project.												
MANUFACTURER & SUPPLIER DETAIL		: Vectus Industries limited												
DATE OF INSPECTION		:												
SIZE		: CPVC UNION 1/2"												
BATCH NO		:												
QUANTITY		: 18500 NO.												
Sr.N	Socket entrance dia in mm			Socket bottom dia in mm			Socket length in mm	Inner diameter in mm	WALL THICKNESS in mm				VISUAL APPERANCE	
O.	min	max		min	max				Soc entr	Soc bottom	Body			
1	16.00	16.16		15.64	15.80		12.70	12.42	1.73	2.59	3.25		Satisfactory	
2	16.05	16.12		15.66	15.80		12.75	12.42	1.73	2.61	3.26		Satisfactory	
3	16.10	16.16		15.67	15.80		12.78	12.45	1.85	2.62	3.27		Satisfactory	
4	16.11	16.15		15.72	15.79		12.75	12.46	1.76	2.64	3.26		Satisfactory	
5	16.11	16.15		15.72	15.79		12.78	12.42	1.78	2.65	3.25		Satisfactory	
6	16.10	16.16		15.67	15.79		12.75	12.45	1.76	2.65	3.27		Satisfactory	
7	16.10	16.16		15.66	15.79		12.78	12.46	1.74	2.61	3.29		Satisfactory	
8	16.12	16.15		15.67	15.79		12.75	12.42	1.76	2.62	3.30		Satisfactory	
9	16.05	16.15		15.72	15.79		12.78	12.45	1.78	2.64	3.27		Satisfactory	
10	16.07	16.15		15.72	15.80		12.75	12.46	1.76	2.65	3.29		Satisfactory	
10	16.11	16.15		15.68	15.80		12.78	12.42	1.74	2.65	3.30		Satisfactory	

Marking-

Q.A. Incharge

Vectus Ind Ltd.

TECTUS INDUSTRIES LIMITED

REVIEW.....

WITNESS.....

IPE GLOBAL LTD

PDMC AMRUT, KARNATAKA

JOINT INSPECTION DIMENSION REPORT FOR CPVC PIPES AT VECTUS IND LTD

STANDARD REFERENCE- AS PER IS 15778:2007

JOINT INSPECTION DIMENSIONS & TESTING REPORT

NAME OF DEPARTMENT : Karnataka Urban water supply and drainage board

NAME OF CONSULTANT : M/s IPE GLOBAL LTD

NAME OF PROJECT : Mandya WSS Project.

MANUFACTURER & SUPPLIER DETAIL : Vectus Industries limited

DATE OF INSPECTION :

SIZE : CPVC PIPE 15 MM SDR-11 CH-1

BATCH NO. :

QUANTITY : 13875 mtr

1.Dimension Check up report

(Test results as per IS:15778:2007, Clause 7.1.1 & Table2, 7.1.2 & Table2, 7.1.3, 1.8.0 & 9.1)

Sr.No	Visual Appearance	Pipe Ends	Mean O/D (mm)	Wall thickness			OD At any point		Length of pipe
				Min(mm)	Max(mm)	Avg (mm)	Min(mm)	Max(mm)	
Specified Value									
1	Satisfactory	Square	15.80-16.00	1.75	2.20	1.98	15.80	16.00	3 mtr
2	Satisfactory	Square	15.87	1.81	1.92	1.87	>15.80	<16.00	3 mtr
3	Satisfactory	Square	15.88	1.91	1.98	1.94	>15.80	<16.00	3 mtr
4	Satisfactory	Square	15.85	1.88	2.05	1.97	>15.80	<16.00	3 mtr
5	Satisfactory	Square	15.81	1.98	2.18	2.08	>15.80	<16.00	3 mtr
6	Satisfactory	Square	15.85	1.78	2.00*	1.89	>15.80	<16.00	3 mtr
7	Satisfactory	Square	15.93	1.79	1.98	1.89	>15.80	<16.00	3 mtr
8	Satisfactory	Square	15.81	1.84	1.96	1.90	>15.80	<16.00	3 mtr
9	Satisfactory	Square	15.82	1.87	1.98	1.93	>15.80	<16.00	3 mtr
10	Satisfactory	Square	15.90	1.81	1.98	1.90	>15.80	<16.00	3 mtr
	Satisfactory	Square	15.85	1.92	2.02	1.97	>15.80	<16.00	3 mtr

P.T.O





SGS India Pvt. Ltd.

Inspection Report

File No : 5007080	Inspection Report No. :- BHO/MUM/VIL/2018/11/28
Place of inspection: At Mfg.'s Work Banmore Ind. Area, Morena (M.P)	Date of inspection: 20/11/2018 & 21/11/2018
Time In: 10:30 A.M 11:00 A.M	Time Out: 06:30 P.M 06:00 P.M
Name of the Project (if any)	AUGMENTATION OF WATER SUPPLY SCHEME UNDER "AMRUT MISSION" RAIPUR WSS PROJECT.
Name of Client	COMMISSIONER, MUNICIPAL CORPORATION OF RAIPUR WSS PROJECT
Name Seller/Manufacturer/ Vendor	M/s Indian Hume Pipe, Construction House "5" Walchand Hirachand Road Ballard Estate, MUNBAI- 400 001 M/s Vectus Industries, Ltd. 26-27, Banmore Industrial Area, Morena (M.P)
Client's / Seller- P/O No. & Date	542/Amrut Scheme /Nagar Palika Nigam/18 Raipur Dt. 20.09.2018
Date of last inspection	NA
Inspection call reference	By e-mail VIL/18-19/14 dt. 14.11.2018
Status of previous hold points / Deviation	NIL
P.O. Status: Completed / Balance / Hold	Completed / Balance

Item # as per Contract / Order	Description & Size	Quantity as per Contract / Order (Mtrs.)	Quantity Previously passed (Mtrs.)	Quantity Now Offered (Mtrs.)	Quantity Now Passed (Mtrs.)	Quantity Rejected (Mtrs.)	Quantity Balance (Mtrs.)
1.	Polythelene- Aluminium- Polythelene (PE-AL-PE) composite pressure pipes confirming to IS: 15450:2004 For 15 mm connection DIA: 1620 Pipes will have pressure rating of 13.8 Kg/Cm ² at 23°C and 11.0 Kg/Cm ² at 60°C & Shall be Tested for 15 kg/cm ² <u>Batch No.</u> 10081721,19071821,18071821, 16071821, 24051712,13071821, 12061821, 17071821,14071821, 20071821, 20180721,20180724, 20180722 & 20180723	1,24,020	NIL	30,010	30,000	NIL	94,020

10 Mtrs. Pipes consume in testing.
P.O States: Balance



SGS

NO. : R **159531**

DATE : 08.04.2019

SGS India Private Limited.**Regd. & Corp. Office :**

SGS House,
4B, Adi Shankaracharya Marg,
Powai Road, Vikhroli (West),
Mumbai - 400 083.

Tel. : (022) 6640 8888

Fax : (022) 6640 8829

Executing Branch :

SGS India Pvt. Ltd.
M-2/B, 43, R. R. Arcade,
M. P. Nagar, Zone-II,
Bhopal-462011 (M.P.)
Phone No. :- +91-7552554437
Fax No. :- +91-7552554437

FILE NO.:

5011735
R No.-BHO/2019/250

RELEASE NOTE

Name & Address of the Client : Bansal Construction Works P. Ltd. 3rd Floor Tawa Complex,
Bittan Market, E-5, Arera Colony, Bhopal

Name of the Project (if any) : A.K.V.N (M.P)

Name & Address of the Manufacturer's : M/s Vectus Industries, Ltd., Unit-II, Plot No.41-42, Banmore,
Industrial Area, Distt.- Morena (M.P)

Contract/Order No. & Date : BCWPL/2019031601/19 Dt. 16/03/2019

Date (s) & Place (s) of inspection : On 26.03.19 & 28.03.19 at Vectus Industries, Ltd., Unit-II, Plot
No.41-42, Banmore, Industrial Area, Distt.- Morena (M.P)

Item No. as per Contract / Order	Brief Description of the Item	Quantity As per contract / order (mtrs.)	Quantity Previously Passed (mtrs.)	Quantity Offered (mtrs.)	Quantity Now Passed (mtrs.)	Quantity Rejected (mtrs.)	Quantity Balance (mtrs.)
1.	ISI Marked HDPE Pipe as per the IS: 4984-2016 With Amendment No.1 May-2018 (Fifth Revision) HDPE Pipes CLASS:- PE 100, PN-6, TYPE OF PIPE-ENDS:- Plain, DN 160 mm, SDR 21 Pipe Length 6 Mtrs. Batch No. 20190318002001, 20190320002001, 20190322002001,	27500	NIL	13800	13752	NIL	13750

P.O Status: Balance

Contd

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service printed overleaf. The Client's Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.



SGS India Pvt. Ltd.

Inspection Report

File No : 5004779	Inspection Report No.:- BHO/MUM/IHM/2018/06/02
Place of inspection: At Mfg.'s Work Banmore Ind. Area, Morena (M.P)	Date of inspection: 03/06/2018 & 04/06/2018
Time In: 09:00 A.M 09:00 A.M	Time Out: 08:00 P.M 04:00 P.M
Name of the Project (if any)	Korba Water Supply Scheme, Part-II (Under AMRAT MISSION)
Name of Client	OFFICE OF THE MUNICIPAL CORPORATION KORBA (C.G)
Name & Address of contractor's	M/s Indian Hume Pipe, Construction House "5" Walchand Hirachand Road Ballard Estate, MUNBAI- 400 001
Name & Address of Manufacturer's	M/s Vectus Industries, Ltd. 26-27, Banmore Industrial Area, Morena (M.P)
Client's / Seller- P/O No. & Date	H/993/17-18 Dt. 28.12.2017
Date of last inspection	NA
Inspection call reference	By e-mail dt. 29.05.2018
Status of previous hold points / Deviation	NIL
P.O. Status: Completed / Balance / Hold	Balance

Item # as per Contract/ Order	Description & Size	Quantity as per Contract / Order	Quantity Previously passed	Quantity Now Offered	Quantity Now Passed	Quantity Rejected	Quantity Balance
1.	Polythelene- Aluminium- Polythelene (PE-AL- PE) composite pressure pipes confirming to IS: 15450:2004 For 15 mm connection DIA : 1620 Pipes will have pressure rating of 13.8 Kg/Cm ² at 23°C and 11.0 Kg/Cm ² at 60°C & Shall be Tested for 15 kg/cm ²	1,74,000 Mtrs.	NIL	30,010 Mtrs.	30,000** Mtrs. Refer Remarks.	NIL	1,44,000 Mtrs.

10 Mtrs. Pipes consume in testing.
P.O States: Balance





SGS India Pvt. Ltd.

Inspection Report

File No : 5008760	Inspection Report No. :- MUM/L&T/BIDKIN/BHO/201811/07
Place of inspection : M/s Vectus Industries Ltd., 41-42, Banmor Industrial Area, Gwalior	Date of inspection: 21/11/2018 To 23/11/2018
Time In : 10:30 A.M.	Time Out : 06:30 P.M
Name of the Project (if any)	Bidkin Project, Aurangabad
Name of the Client	Larsen & Toubro Limited, Construction Water & Effluent Treatment P.B No. 979, Mount Poonamallee Road Manapakkam Chennai -600 089
Name of the Seller / Manufacturer / Vendor	M/s Vectus Industries Ltd., 41-42, Banmor Industrial Area, Gwalior (M.P)
Client's P.O. No./ Ref. No. & Date	EG925PO8001738 Dt. 05/11/2018
Date of last inspection	N.A
Inspection call reference	LetterNo.SBIA/BIDKIN/L&T/AURIC/2017/L&T/BIDKIN/01/0466 Dt. 19/11/2018 By e-mail dt. 19/11/2018
Status of previous Hold points / Deviation	NIL
P.O. Status: Completed / Balance / Hold	Completed

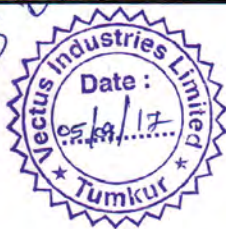
Item # as per Contract/ Order	Description & Size	Quantity as per Contract / Order (Mtrs.)	Quantity Previously passed (Mtrs.)	Quantity Offered (Mtrs.)	Quantity Now Passed (Mtrs.)	Quantity Rejected (Mtrs.)	Quantity Balance (Mtrs.)
1	ISI Marked HDPE Pipe as per the IS: 4984-2016 With Amendment No.1 May-2018 (Fifth Revision) HDPE Pipes CLASS:- PE 100, PN6, TYPE OF PIPE-ENDS:- Plain, DN 200 mm, Pipe Length 12 Mtrs. Batch No. 2018111622, 2018111821	9780	NIL	9840	9780	NIL	NIL
2.	HDPE Pipes CLASS:- PE 100, PN6, TYPE OF PIPE-ENDS:- Plain, DN 250 mm Pipe Length 12 Mtrs. Batch No. 2018111922, 2018112021	6220	NIL	6280	6220	NIL	NIL

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VF-IN-IND-IN-012 / Ver.1.2/13-08-2018/ Page 1 of 1



JOINT INSPECTION REPORT		REPORT NO	1						
		DATE OF INSPECTION	5/9/2017						
		PAGE NO	1						
NAME OF MANUFACTURER:		VECTUS INDUSTRIES LTD, Plot no.98/99A, 1st Stage, Vasanthanarasapura Indl. Area, Nagenahalli village, Kora Hobli, Tumkur-572138, Karnataka							
TEST NAME :	WATER TIGHTNESS BETWEEN ELEMENTS AND ACCOMPANYING COMPONENTS & WATER TIGHTNESS BETWEEN BASE AND RISER CONNECTION								
REFERENCE NO (Standard, instruction, specification etc.) :		EN 13598-2							
CUSTOMER NAME :	SHAPPOORJI PALLONJI AND COMPANY PVT LTD	ORDER NO	4200152333						
PROJECT NAME:	AITL-D&B OF infra works-MIDC								
PRODUCT NAME:	MANHOLE ((1000 MM DIA)								
PRODUCTION DATE:	10/08/17 TO 28/08/17	RAW MATERIAL:	PE						
TEST INFORMATION:	<table border="1"> <tr> <td>Water tightness between elements and accompanying components</td> <td>No leakage</td> <td>Test pressure Testing time</td> <td>0.1H bar^d 15 min</td> <td>Chamber filled with water to the maximum water table depth recommended by the manufacturer.</td> </tr> </table>				Water tightness between elements and accompanying components	No leakage	Test pressure Testing time	0.1H bar ^d 15 min	Chamber filled with water to the maximum water table depth recommended by the manufacturer.
Water tightness between elements and accompanying components	No leakage	Test pressure Testing time	0.1H bar ^d 15 min	Chamber filled with water to the maximum water table depth recommended by the manufacturer.					
RESULTS	Total no of Qty:-100 NOS No of sample tested:-1 NOS Sample 1:- <i>no any leakage is not found</i>								
DECISION	<i>Sample is passed the test</i>								
S.Balamurugan Vectus-QA Incharge		Ramaswamy SGS India Pvt.Ltd							



SGS	<input checked="" type="checkbox"/> WITNESSED <input type="checkbox"/> REVIEWED
Name <i>B.N. Ramaswamy</i>	
Date <i>5/9/17</i>	
SGS INDIA PVT. LTD. BANGALORE	
<small>The SGS stamp and signature are for identification purposes only and are not a substitute for the SGS General Conditions of Services, particularly article 2 (d), available at http://sgs.com/terms-and-conditions.</small>	

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स

इंजीनियरिंग एण्ड टेक्नॉलाजी

प्रधान कार्यालय, पी.डी.आई सेल

(रसायन एवं पेट्रो रसायन विभाग,

रसायन एवं उर्वरक मंत्रालय, भारत सरकार)

टी.वी.के. औद्योगिक इस्टेट, गिण्डी, चैन्नई 600-032

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वेब : www.cipet.gov.in

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**CENTRAL INSTITUTE OF PLASTICS
ENGINEERING & TECHNOLOGY**

Head Office, PDI Cell

(Department of Chemicals & Petrochemicals,
Ministry of Chemicals & Fertilizers, Govt. of India)
TVK Industrial Estate, Guindy, Chennai-600 032
Phone : +91-44-22254781/22254779/64629018

E-mail : pdicivet@gmail.com

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CIPET / QF / 7741

Name of the Inspecting Official: Abhishek Rajvansh

W.O. Centre: Amritsar

Code No. : 906

Camp at: M/s Vectus Industries Limited

INSPECTION REPORT

1.	Ref. No.: CIPET:CSTS/DDN/19-20/10/ASR /11/017	Date : 06/12/2019
2.	Name of the Indenter / Consignee with detailed address	The superintending Engineer Pb. W/S & Save Circle Patiyala
3.	Indenter Order No. & Date and Extension (if any)	4644 dated 30/08/2019
4.	Details of the Consignee	The superintending Engineer Pb. W/S & Save Circle Patiyala
5.	Name of the Supplier / Contractor	M/s Saini Construction Co. Near Sarla Sethi, College Road, Abohar, Fazlika, Panjab(152116)
6.	Supplier Order No. & Date (if any)	SPL-01/2019-20 Dated 12/11/2019
7.	Name and address of the Manufacturer / Inspection site	M/s Vectus Industries Limited, Plot-No.26&57,Sec-2,IIE,Sidcul, Haridwar(U.K.)
8.	Manufacturer / Supplier Inspection Call Letter No. & Date	VECTUS/QA/I.C.-01/2019-20 dated 25/11/2019
9.	PDI Cell Assignment No. & Date	CIPET/HO/PDI/2019202685 dated 26/11/2019
10.	Date of inspection	Initiated on : 05/12/2019 Initiated on : 06/12/2019
11.	Any other information	Manufacturer License No. CM/L: 8300133310 *Inspection of 7920 mtr. Pipe of SN-8 200 mm & 3450 mtr. SN-8 250 mm has been conducted.
12.	Name of Work	Providing and Laying for UPVC & RPVC pipes sewer and Construction of MH chamber, Making Sewer House connection and construction of roads and all other works contingent there to at Sangrur.

DETAILS OF THE STORES AS PER IS: 15328-2003 latest amendments

Sl. No.	Description of the items	Quantity as per order (mtr)	Quantity inspected earlier (Cumulative) (mtr)	Quantity offered for Inspection* (mtr)	Quantity Accepted (mtr)	Quantity Rejected (mtr)	Quantity Balance (mtr)
1.	UPVC SN-8 SDR:34 DN 200 mm	7920	0	7920	7920	NIL	0
2.	UPVC SN-8 SDR:34 DN 250 mm	3450	0	3450	3450	NIL	0

Remarks: All accepted items are stamped thus -

CIPET
probe . perfor



Certified that the items as detailed above have been inspected and accepted. The accepted items may be dispatched to the consignee. The Inspection Document Nos. 10 A (1911017) & 10 B (1911017) dated 06/12/2019 is enclosed here with.

This inspection report is valid for 30 days and any Dispute/discrepancies/claims may be brought to the notice of the undersigned within 30 days from the date of issue of this report.

Authorised Signatory

Abhishek Rajvansh (Code No. 906)

Copy to: 1. Indenter

2. Consignee

3. M/s Vectus Industries Limited

4. CIPET

Website : www.cipet.gov.in



INSPECTION DOCUMENT

CIPET / QF / 7742

Ref: CIPET:CSTS/DDN/19-20/10/ASR /11/017

Issued to: M/s Vectus Industries Limited, Plot-No,26 & 57,Sec-2,IIE,Sidcul, Haridwar (U.K.)

Manufacturer / Supplier Inspection Call Letter No. & Date: VECTUS/QA/I.C.-01/2019-20 dated 25/11/2019

INSPECTION DOCUMENT AS PER IS NO. : AS PER IS- 15328:2003

DOC. NO.: 10 A (1911017)

Page No.: 1 of 2

DATE: 06/12/2019

PART - A: PARTICULARS OF STORES

- | | | |
|---------------------------------------|---|---|
| a) Description of the items | : | UPVC Pipe SN-8, SDR 34 Ring socket |
| b) Grade/Variety/Type/Size/Class etc. | : | PVC UGD Pipe SN-8 SDR -34 200mm |
| c) Declared Value, if any | : | NIL |
| d) Quantity | : | 7920 Mtr. |
| e) Any Other Information | : | Batch No. 19111962,19111963,20111961,20111962,20111963,
21111961,21111962,21111963,22111961,22111962,22111963,
23111961,23111962,23111963,24111961,24111962,24111963,
25111961 |

PART - B: SUPPLEMENTARY INFORMATIONS

- a) Reference to sampling procedure: IS : 15328:2013

PART - C: RESULTS OF WITNESSED TESTS & REVIEW OF DOCUMENTS

Results of Witnessed Tests					
Sl. No.	Clause No. / QAP Sl. No.	Tests Witnessed	Unit	Specified requirements	Observed Results
1.	6.1.1 Table-1	<u>DIMENSIONS OF PIPE</u>			
		Mean outside diameter			
		a) Minimum	mm	200.0	200.28
		b) Maximum	mm	200.6	200.55
2.	6.1.1 Table-1	Outside diameter at any point			
		a) Minimum	mm	197.6	199.36
		b) Maximum	mm	202.4	201.35
3.	6.1.2 Table-2	Wall thickness			
		i) Minimum	mm	5.9	6.00
		ii) Maximum	mm	6.7	6.42
4.	6.1.3	Effective Length of Pipe		6.000	6.002
5.	6.1.4 Table3	<u>Dimension of socket</u>			
		a) Mean Inside diameter (min)	mm	200.6	200.88
		b) Minimum Depth of Engagement	mm	50	57.00
		c) Depth of Sealing Zone(Max)	mm	40	39.00
		d) Length of Spigot(min)	mm	99	115.18
		e) Chamfer length	mm	9	10.00
6.	6.1.4.1	Wall Thickness of socket (min)	mm	5.31	5.88
		Wall Thickness of groove (min)	mm	4.43	5.62

Contd..2

Handwritten signature



DOC. NO.: 10 A(1911017)

Page No.: 2 of 2
DATE: 06/12/2019

Sl. No.	Clause No. / QAP Sl. No.	Tests Witnessed	Unit	Specified requirements	Observed Results
7.	7.1	Appearance	---	Pipe should be smooth, Clean and free from grooving's, blistering and any other surface irregularity.	Confirms
8.	7.2	Colour	---	The Colour of pipe Should be dark(any shade of brown)	Dark Shade of Brown
9.	7.3	Vicat Softening Temperature	°C	Should not be less than 79	81.9
10.	7.4	Reversion Test	%	±5	2.63
11.	8.1	Resistance to External Blow at 0°C	--	TIR Should not more than 10 %	0%

Review of Documents (if any):

Sl. No.	Clause No. / QAP Sl. No.	Test Parameters / Documents	Certificate / Report No. & Date	Certificate / Report Issued by	Review / Remarks
1.	8.2	IS : 15328 - 2003	1263 dated 28/03/2019	CIPET Lucknow	NIL
2.	8.3	IS : 15328 - 2003	1263 dated 28/03/2019	CIPET Lucknow	NIL
3.	10.1	IS : 15328 - 2003	1263 dated 28/03/2019	CIPET Lucknow	NIL

PART - D: REMARKS

NOTE:

1. This Inspection document shall not be reproduced except in full without the written approval of the PDI Cell at CIPET Head Office, Chennai.
2. These witness results relate exclusively to the work ordered or the object (s) or the lot inspected.
Lab. Environmental Condition during the witness of tests: Temperature $25 \pm 1^\circ \text{C}$ & RH - $62 \pm 2 \%$

Authorised Signatory

CIPET सि पे ट

Abhishek Rajvansh (Code No. 906)

Camp at: M/s Vectus Industries Limited, Plot-No.26&57, Sec-2, IIE, Sidcul, Haridwar (U.K.)

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स
इंजीनियरिंग एण्ड टेक्नॉलाजी
 प्रधान कार्यालय, पी.डी.आई सेल
 (रसायन एवं पेट्रो रसायन विभाग,
 रसायन एवं उर्वरक मंत्रालय, भारत सरकार)
 टी.वी.के. औद्योगिक इस्टेट, गिण्डी, चैन्नई 600-032
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 वेब : www.cipet.gov.in

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CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

Head Office, PDI Cell

(Department of Chemicals & Petrochemicals,
 Ministry of Chemicals & Fertilizers, Govt. of India)
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 E-mail : pdicivet@gmail.com
 Web : www.cipet.gov.in



CIPET / QF / 7742

INSPECTION DOCUMENT

Ref: CIPET:CSTS/DDN/19-20/10/ASR/11/017

Issued to: M/s Vectus Industries Limited, Plot-No,26 & 57,Sec-2,IIE,Sidcul, Haridwar (U.K.)

Manufacturer / Supplier Inspection Call Letter No. & Date: VECTUS/QA/I.C.-01/2019-20 dated 25/11/2019

INSPECTION DOCUMENT AS PER IS NO. : AS PER IS- 15328:2003

DOC. NO.: 10 B (1911017)

Page No.: 1 of 2
 DATE: 06/12/2019

PART - A: PARTICULARS OF STORES

a) Description of the items	UPVC Pipe SN-8, SDR 34 Ring socket
b) Grade/Variety/Type/Size/Class etc.	PVC UGD Pipe SN-8 SDR -34 250mm
c) Declared Value, if any	NIL
d) Quantity	3450 Mtr.
e) Any Other Information	Batch No. 15111961,15111962,15111963,16111961,16111962, 16111963,17111961,17111962,17111963,18111961,18111962, 18111963

PART - B: SUPPLEMENTARY INFORMATIONS

b) Reference to sampling procedure: IS : 15328:2013

PART - C: RESULTS OF WITNESSED TESTS & REVIEW OF DOCUMENTS

Results of Witnessed Tests					
Sl. No.	Clause No. / QAP Sl. No.	Tests Witnessed	Unit	Specified requirements	Observed Results
12.	6.1.1 Table-1	DIMENSIONS OF PIPE			
		Mean outside diameter			
		a) Minimum	mm	250.0	250.18
13.	6.1.1 Table-1	b) Maximum	mm	250.8	250.68
		Outside diameter at any point			
		a) Minimum	mm	247.0	249.32
14.	6.1.2 Table-2	b) Maximum	mm	253.0	252.04
		Wall thickness	mm	7.3+1	7.80
15.	6.1.3	Effective Length of Pipe		6.000	6.005
		Dimension of socket			
		a) Mean Inside diameter (min)	mm	250.8	250.99
16.	6.1.4 Table3	b) Minimum Depth of Engagement	mm	55	58.00
		c) Depth of Sealing Zone(Max)	mm	70	69.00
		d) Length of Spigot(min)	mm	125	138.00
		e) Chamfer length	mm	9	10
		Wall Thickness of socket (min)	mm	6.57	7.41
17.	6.1.4.1	Wall Thickness of groove (min)	mm	5.48	6.69

Contd..2

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सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स
इंजीनियरिंग एण्ड टेक्नॉलाजी
प्रधान कार्यालय, पी.डी.आई सेल
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Holo
Gram



CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

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DOC. NO.: 10 B(1911017)

Page No.: 2 of 2
DATE: 06/12/2019

Sl. No.	Clause No. / QAP Sl. No.	Tests Witnessed	Unit	Specified requirements	Observed Results
18.	7.1	Appearance	---	Pipe should be smooth, Clean and free from grooving's, blistering and any other surface irregularity.	Confirms
19.	7.2	Colour	---	The colour of pipe Should be dark(any shade of brown)	Dark shade of Brown
20.	7.3	Vicat Softening Temperature	°C	Should not be less than 79	82.4
21.	7.4	Reversion Test	%	±5	2.72
22.	8.1	Resistance to External Blow at 0°C	---	TIR Should not more than 10 %	0%

Review of Documents (if any):

Sl. No.	Clause No. / QAP Sl. No.	Test Parameters / Documents	Certificate / Report No. & Date	Certificate / Report Issued by	Review / Remarks
1.	8.2	IS : 15328 - 2003	1263 dated 28/03/2019	CIPET Lucknow	NIL
2.	8.3	IS : 15328 - 2003	1263 dated 28/03/2019	CIPET Lucknow	NIL
3.	10.1	IS : 15328 - 2003	1263 dated 28/03/2019	CIPET Lucknow	NIL

PART - D: REMARKS

NOTE:

- This Inspection document shall not be reproduced except in full without the written approval of the PDI Cell at CIPET Head Office, Chennai.
- These witness results relate exclusively to the work ordered or the object (s) or the lot inspected.
Lab. Environmental Condition during the witness of tests: Temperature $25 \pm 1^\circ \text{C}$ & RH - $62 \pm 2 \%$

Authorised Signatory

CIPET सि पे ट

Abhishek Rajvansh (Code No. 906)

probe . perform . practice . Plastics

Camp at: M/s Vectus Industries Limited, Plot-No,26&57,Sec-2,IIE,Sidcul, Haridwar (U.K.)



QUALITY ASSURANCE PLAN									
MANUFACTURER:		ITEM DESCRIPTION: HDPE PIPES PE100 PN6 SDR 21			QAP No.VILBHDPE/18-19/MARCH/01 Dated 26/03/2019			PROJECT: NIWADI- PRATHIPUR-II MULTI VILLAGES RURAL WATER SUPPLY SCHEME DISTRICT TIKAMGARH (M.P)	
VECTUS INDUSTRIES LIMITED		SPECIFICATION DETAILS: IS: 4984 - 2016 With amendment No. 01 May 2018 (Fifth Revision)			P.O No. : 20032 Dated 20.03.2019			CLIENT:- Managing director, of Madhya Pradesh Jal Nigam, Bhopal	
								CONTRACTOR:-TPPL-JEW (JV)	
								Consultant Name:- TUV-SUD SOUTH ASIA PVT LTD. TIKAMGARH	
Sl. No.	Component / Operation	Method of Check	Extent of Check	Ref. Standard	Acceptance Norms	Format of Record	Agency		Remarks
TEST ON RAW MATERIAL:									
A							M	Contractor Agency	C/TPI or both
1	Base Density	Review of TC	1 sample per lot	IS: 4984 - 2016	As per CI. No. 5.2, Table 2 & test according to IS 7328 shall be within 930 to 960 kg/m ³ @ 27° C	RMTC	R	R	R
2	Melt Flow Rate	Review of TC	1 sample per lot	IS: 4984 - 2016	As per CI. No. 5.2, Table 2 & test according to IS 2530 shall be within 0.2 to 1.1 g / 10 Min. @ 190° C & 5 kg Load	RMTC	R	R	R
3	Thermal Stability (OIT)	Review of TC	1 sample per lot	IS: 4984 - 2016	As per CI. No. 5.2, Table 2 & test according to Annex B, shall be ≥ 20 Minutes (200° C, Isothermal)	RMTC	R	R	R
4	Volatile Matter	Review of TC	1 sample per lot	IS: 4984 - 2016	As per CI. No. 5.2, Table 2 & test according to Annex C, shall be ≤ 350 mg/Kg. (No. of test pieces 01)	RMTC	R	R	R
5	Water Content	Review of TC	1 sample per lot	IS: 4984 - 2016	As per CI. No. 5.2, Table 2 & test according to Annex D, shall be ≤ 300 mg/Kg. (No. of test pieces 01) If water content is more than 300 mg/kg, drying to be done prior use.	RMTC	R	R	R
6	Test on Carbon Black Master Batch	Review of TC	1 sample per lot	As per CI. No. 5.3 IS: 4984 - 2016	1. Density: (1.5 to 2 g/ml) 2. Toluene extract not more than 0.1 percent (m/m). 3. Maximum Volatile matter 0.9 percent (m/m) 4. Carbon black particle size should be less than 0.025 μ	MBTC	R	R	R
7	Resin for carbon black content	Review of TC	1 sample per lot	IS : 2530 / ASTM D1603	The resin shall be compounded with carbon black. The carbon black content in the material shall be within 2.5 ±0.5% and the dispersion of carbon black shall be satisfactory.	RMTC	R	R	R
8	Anti Oxidant	Review of TC	1 sample per lot	IS: 4984 - 2016	IS: 4984 - 2016 Cl. No.5.4	RMTC	R	R	R
9	HDPE Resin LTHS (10000 Hrs.)	Review of TC	Each Grade of Raw Material	ISO: 9080	ISO: 9080 / Client Tech. Spec.	ILTR	R	R	R
10	Rapid Crack Propagation Test	Review of TC	Each Grade of Raw Material	ISO: 13478	ISO: 13478 / Client Tech. Spec.	ILTR	R	R	R
TEST ON PIPES : GEOMETRIC CHARACTERISTICS OF PIPE:									
1	Colour & Identification stripes	Visual	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 6.2 & 6.2.1, Colour of pipe shall be Black with minimum 3 Nos. of longitudinal Stripes of minimum Width of 3 mm in Blue colour. Circumferentially distributed. These stripes shall be co-extruded during pipe manufacturing and shall not preferably be more 0.2 mm in depth for wall thickness up to 10 mm and 0.5 mm beyond 10 mm. The material of the stripes shall be of same type as used in the base compound of the pipe.	Inspection Report	P	W	W
2	Visual Appearance	Visual	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 7.1, The Internal and External surface of the Pipe shall be smooth, clean and free from grooving and other defects. Slight shallow longitudinal grooves or irregularities in the wall thickness shall be permissible, provided that the wall thickness remains within the permissible limits.	Inspection Report	P	W	W

Checked &

Recommended For Approval

MANUFACTURER

TPPL - JEW - JV
Authorised Signatory



Team Leader
TUV-SUD South Asia Pvt. Ltd.
Tikamgarh

CLIENT / TPI
Dy. Tead Leader
TUV-SUD South Asia Pvt. Ltd.
Tikamgarh

MANAGER
MPJNM
PIU-Tikamgarh (M.P.)

APPROVED

GENERAL MANAGER
M.P. Jal Nigam Maryadit
PIU-Tikamgarh (M.P.)

3	Maximum out of Squareness at pipe ends	Visual	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	CI No. 7.1 & The ends of the Pipes shall be clearly cut square with the axis of pipe to within the tolerance specified and free from deformity	Inspection Report	P	W	W	
4	Length	Measurement by Measuring Tape	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per IS : 4984 - 2016 Clause No. 7.2.7.3 & customer requirement	Inspection Report	P	W	W	No Negative tolerance is acceptable in length.
5	Mean Outside Diameter	Measurement by Pie Tape & Vernier Calliper	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 7.4 & Table 3	Inspection Report	P	W	W	
6	Ovality	Measurement by Vernier Calliper	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 7.4.1.2 & Table 3, Ovality shall be measured at 300 mm away from cut end. For coiled pipes & Pipes having SDR ≥ 21 , rerounding shall be permissible before the measurement of Ovality. The Ovality shall be measured during Extrusion and prior to Coiling & as per client technical specification	Inspection Report	P	W	W	
7	Wall Thickness	Measurement by Ball Ended Micrometer	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 7.4 & Table 4	Inspection Report	P	W	W	
C TEST ON PIPES : PERFORMANCE (ACCEPTANCE TESTS)										
1	Internal Pressure Creep Rupture Test of Pipe (Acceptance test)	Visual	Table 10 of IS: 4984 - 2016 & one sample per Lot	IS: 4984 - 2016	As per CI. No. 8.1.1 & Test According to Annex E. The Pipe under test shall not show no signs of localized swelling, leakage or weeping and shall not burst when tested at Test Temperature of 80° C for 48 Hours @ Induced Stress as per Table 5	Inspection Report	P	W	W	
2	Reversion	Measurement by Hot Air Oven	Table 10 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 8.2 & Test according to Annex F, the Longitudinal reversion shall not be greater than 3%	Inspection Report	P	W	W	
3	Carbon Black Content & Dispersion	Measurement by CBC Tester, Microscope & Hot Plate	Table 10 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 8.3, when tested from a composite sample of Min. three pipes in accordance with IS 2530, the Carbon Black content shall be within 2.5 ± 0.5 % & the dispersion of Carbon black shall be Satisfactory	Inspection Report	P	W	W	
4	Melt Flow Rate	Measurement by MFI Tester	Table 10 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 8.4, when tested from a composite sample of Min. three pipes as per IS 2530 at 190° C with nominal Load of 5 Kgf, MFR shall not deviate from the MFR of the resin by more than 30 %	Inspection Report	P	W	W	
5	Oxidation Induction Time	Measurement by d OIT Tester	Table 10 of IS: 4984 - 2016 & one sample per Lot	IS: 4984 - 2016	As per CI. No. 8.5, The minimum Oxidation Induction Time of the pipe when tested in accordance with the method given Annex B shall be not less than 20 Minutes.	Inspection Report	P	W	W	
6	Density	Measurement by Density Tester	Table 10 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 8.7, when tested from a composite sample of Min. three pipes as per IS 7328 the Base Density of pipe shall be between 930 to 960 Kg/m ³	Inspection Report	P	W	W	
7	Elongation at Break	Measurement by UTM Tester	Table 10 of IS: 4984 - 2016	IS: 4984 - 2016	As per CI. No. 8.9 & Test according to Annex H, the test specimens Punch / Machined from pipe samples, the Elongation at Break shall be $\geq 350\%$.	Inspection Report	P	W	W	

Jasbir Singh
MANAGER
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GENERAL MANAGER
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CLIENT / TPI

Checked & Recommended For Approval

Jasbir Singh
QA/QC

Team Leader
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Tikamgarh

Dy. Team Leader
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Tikamgarh

MANUFACTURER

TPPL - JEWEL JV
Jasbir Singh
Authorised Signatory

VECHS INDUSTRIES LIMITED UNIT-II
BANMORE

8	Marking	Visual	Table 9 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 10, Each straight Length / Coil shall be clearly & Indelible marked in White/ Yellow Colour using ink/paint or inkjet printing or hot embossing at every One Meter throughout the Length as below. 1) Manufacturer Name / Trade Mark 2) Material Designation 3) Pressure Rating 4) Standard Dimension Ratio (SDR) 5) Outside Diameter 6) Lot Number / Batch Number 7) ISI Logo / BIS Standard No. 8) Year, Month, Day, Machine Number & Shift 9) TPI Marking on all pipes 10) TPI Special marking on witnessed pipe 11) Marked MPJNM ON THE PIPE	Inspection Report	P	W	W
D. TEST ON PIPES : PERFORMANCE (TYPE TESTS)									
1	Internal Pressure Creep Rupture Test of Pipe	Visual	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 8.1.1 & Test According to Annex E. The Pipe under test shall not show no signs of localized swelling, leakage or weeping and shall not burst when tested at Test Temperature of 27° C for 100 Hours @ Induced Stress as per Table 5	Type Test Report	P	R	R
2	Internal Pressure Creep Rupture Test of Pipe	Visual	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 8.1.1 & Test According to Annex E. The Pipe under test shall not show no signs of localized swelling, leakage or weeping and shall not burst when tested at Test Temperature of 80° C for 165 Hours @ Induced Stress as per Table 5	Type Test Report	P	R	R
3	Internal Pressure Creep Rupture Test of Pipe	Visual	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 8.1.1 & Test According to Annex E. The Pipe under test shall not show no signs of localized swelling, leakage or weeping and shall not burst when tested at Test Temperature of 80° C for 1000 Hours @ Induced Stress as per Table 5	Type Test Report	P	R	R
4	Internal Pressure Creep Rupture Test of Pipe Joint	Visual	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 8.1.1 & Test According to Annex E. The Pipe under test shall not show no signs of localized swelling, leakage or weeping and shall not burst when tested at Test Temperature of 80° C for 48 Hours @ Induced Stress as per Table 5	Type Test Report	P	R	R
5	Overall Migration	Measurement	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 8.6, when tested from a composite sample of Min. three pipes as per IS 9845 the Overall Migration of Constituents shall be not more than 10 mg/dm ² .	Type Test Report	P	R	R
6	Tensile Strength for Butt-Fusion	Measurement	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. No. 8.8 & Test according to Annex G, the test specimens Punch / Machined from Butt Fusion Sample (Preferably 110 mm SDR 11) shall show ductile failure.	Type Test Report	P	R	R
7	Slow Crack Growth rate	Measurement	Cl. No.: 9.1 & Table 7 of IS: 4984 - 2016	IS: 4984 - 2016	As per Cl. 8.10 & Test According to Annex E. The notched test specimens prepared from pipe size of preferably 110 mm SDR 11 in accordance with Annex J shall not show no signs of localized swelling, leakage or weeping and shall not burst when tested at Test Temperature of 80° C for 500 Hrs @ Internal Pressure as per clause 8.10.	Type Test Report	P	R	R

NOTES:

1. Calibration certificate of all measuring equipment shall be provided for review.

2. No addition of Reworked/ Recycled Material from the manufacturer's own rework material resulting from the manufacture of pipes is permissible and the vendor is required to use only 100% virgin resin compound.

LEGENDS:

RMTC - RAW MATERIAL TEST CERTIFICATE

M - MANUFACTURER
Contractor: IHP
C - CLIENT / TPI
TPI- SGS / RITES / CIPET

Team Leader SQC

[Signature]
D/WOC

MANUFACTURER

TPPL - JEW - JV

[Signature]

Authorised Signatory



TUV-SUD South Asia Pvt. Ltd.
Tikamgarh

CLIENT / TPI

Dy. Team Leader
TUV-SUD South Asia Pvt. Ltd.
Tikamgarh

Checked &
Recommended For Approval


P - PERFORM
R - REVIEW
W - WITNESS

Team Leader

MANAGER
MPJNM
PIU-Tikamgarh (M.P.)

APPROVED

MANAGER
MPJNM
PIU-Tikamgarh (M.P.)



VECTUS
PIPES AND TANKS

VECTUS INDUSTRIES LIMITED

QUALITY ASSURANCE PLAN (QAP)

Doc No.: VILH/QAP/IHP/01
Rev No.: 00
Rev Date: 00
Eff. Date:

Manufacture :- Vectus Industries Limited, Plot-No. 26 & 57, Sector-2, IIE SIDCUL, HARIDWAR (UK)

CLIENT : Laxmi Civil engineering Services Pvt. Ltd., Nagpur-440010

Name of Contractor : Laxmi Civil engineering Services Pvt. Ltd., Nagpur-440010


Customer PO number : LCES/NGP/PO/0116/2019-20 dtd. 14.06.2019 Qty -60000 Mtrs.(1620mm)

PROJECT NAME : Augmentation of Water Supply Scheme of Durg under Amrut Mission on Turnkey Basis

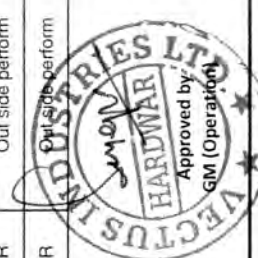
QAPNo.VEC/HRD/COM/QA-QAP/A-10

No.	Clause no.	Test parameter	Requirements	Reference Standard	Sampling mode for manufacturer	Insp. by Manf.	TPI	C	Name of calibration unit
2	4.1, 4.2, 4.3 & 4.4	Material designation	-	-	-	P	-	-	-
2	7	Colour	-	-	one, each consignment	R	W	W	Manf. T/C Review
3	8.8, 1.8, 2.8, 3 & 8.4	DIMENSION							
		Outer diameter	Table-2 of IS 15450	IS 15450:2004	01 sample/4 hrs.	P	W	W	
		Out of roundness	Table-2 of IS 15450	IS 15450:2004	01 sample/4 hrs.	P	W	W	
3		Wall thickness	Table-2 of IS 15450	IS 15450:2004	01 sample/4 hrs.	P	W	W	
		colling	While colling, the inside diameter of coils in mm shall be not less than 20 times the outside diameter of pipes.	IS 15450:2004	-	P	W	W	
4		Pipe end	shall be cleaned & square to the axis of pipe	IS 15450:2004	-	P	W	W	
5	9	Visual appearance	The internal & external surface shall be smooth	IS 15450:2004	each coil	P	W	W	
PHYSICAL, CHEMICAL & MECHANICAL TEST REQUIREMENTS									
6	10.1	Density	942 to 948 gm/cm ³	IS 7328 & IS 15450:2004 cl.10.1 Table-3	Minimum three pipes, each control unit	P	W	W	Manf. T/C Review
7	10.2	Melt flow rate	0.4 to 0.8 - 1907/5 kg	IS 2530 & IS 15450:2004 cl.10.2 Table-3	Minimum three pipes, each control unit	P	W	W	Manf. T/C Review
8	10.3	Carbon black content & dispersion	2.5 ± 0.5 percent	IS 2530 & IS 15450:2004 cl.10.3 Table-3	Minimum three pipes, each control unit	P	W	W	
9	10.4	Pigment dispersion	< 3	IS 15450:2004 cl.10.4 Table-3 Annex - C	One, each control unit	P	W	W	
10	10.5	Adhesion test		IS 15450:2004 cl.10.5 Annex - D	One, each control unit	P	W	W	
11	10.6	Tensile strength	Min Ring strenght (N)	IS 15450:2004 cl.10.6 Table-4 Annex - E	One, each control unit	P	W	W	
12	10.7	Minimum Burst pressur	shall not burst or leakage during prescribed test period.	IS 15450:2004 cl.10.7 Table-4 Annex - F	One, each control unit	P	W	W	
13	10.8	Hydraulic Characterstic Acceptance test	shall not burst or leakage during prescribed test period.	IS 15450:2004 cl.10.7 Table-5 Annex - G	One, each control unit	P	W	W	
14	11.1	Hydraulic Characterstic Type test	shall not burst or leakage during prescribed test period.	IS 15450:2004 cl.11.1.1 Table-6	1. Once in three year	R	R	R	Out side perform
15	11.1.2	Overall Migration test	Mg/lit - 60	IS 15450:2004 cl.11.1.2 & IS 9845-1998	1. Once in three year	R	R	R	Out side perform
16	11.1.3	Thermal stability to Oxidation (OIT)	Min - > 20	IS 15450:2004 cl.11.1.3 Table-3 Annex - H	1. Once in three year	R	R	R	Out side perform

Note :- Legends :- P= Perform, R= Review, W= Witness, Amend = Amendment

Prepared By: 

Quality Dept.



Manufacturer		VECTUS INDUSTRIES LTD. HARIDWAR			CONTROL PLAN		Product Name	PPR Pipes for Hot and Cold water distribution		
Control plan no.		05 Rev. D dtd. 14.09.14					Specification Refer	IS 15801:2008		
Sr. No.	Clause No.	Description	Requirements	Reference Standard	Sampling model for manufacturer	Insp. by Manf.	Record	REMARK		
1	2	3	4	5	6	7	8	10		
1		Batch preparation	As per Table No. 4 (B)	As per Table No. 4 (B)	Each and every batch	P				
2		COLOUR OF Pipes	White in colour	Own	Each and every batch	P				
3		Identification Strip	As per WI 11(B)	As per WI 11(B)	Each and every batch	P				
3		Surface finish	No visual defects in Pipes		10 samples / day	P	Form no. 77(A)			
4	7.1	Outside diameter	As per Table No. 18 (B)	IS 15801-2008	10 samples / day	P	Form no. 77(A)			
5	7.2	Wall Thickness	As per Table No. 18 (B)	IS 15801-2008	10 samples / day	P	Form no. 77(A)			
6	7.4	Length of pipe	3,4 & 6 mtr.	IS 15801-2008	10 samples / day	P	Form no. 77(A)			
7	9.1	Creep Strength								
		I) Acceptance test, Duration 1 hr.	IS 15801-2008	IS 15801-2008	1 sample / day	P	Form no. 78(A)			
		II) Acceptance test, Duration 22 hrs.	IS 15801-2008	IS 15801-2008	Once / week	P	Form no. 78(A)			
		III) Type Test , Duration 165 Hrs.	IS 15801-2008	IS 15801-2008	Type Test as per STI	P	Form no. 49(A)			
		IV) Type Test , Duration 1000 Hrs.	IS 15801-2008	IS 15801-2008	Type Test as per STI	P	Form no. 49(A)			
8	9.2	Fusion Compatibility Test	IS 15801-2008	IS 15801-2008	Type Test as per STI	P	Form no. 49(A)			

[Signature]



Manufacturer		VECTUS INDUSTRIES LTD. HARIDWAR		CONTROL PLAN	Product Name	PPR Pipes for Hot and Cold water distribution	
Control plan no.		05 Rev. D dtd. 14.09.14			Specification Refer	IS 15801:2008	
9	9.3	Heat Reversion	IS 15801-2008		IS 15801-2008	Once / day	P
10	9.4	Impact Strength	IS 15801-2008	IS 15801-2008	Once / day	P	Form no. 78(A)
11	9.5	Density Test	IS 15801-2008	IS 15801-2008	Once / day	P	Form no. 78(A)
12	9.6	M.F.I. Test	IS 15801-2008	IS 15801-2008	Once / day	P	Form no. 78(A)
13	9.9	Opacity Test	IS 15801-2008	IS 15801-2008	Type Test as per STI	P	Form no. 84(A)
14	6.6	Over all Migration Test	IS 15801-2008	IS 15801-2008	Type Test as per STI	P	Form no. 88(A)



Prepared BY

MANUFACTURE		VECTUS INDUSTRIES LIMITED UNIT-II BANMORE		QUALITY ASSURANCE PLAN		CLIENT	
CALLOUT ORDER. NO. & DATE						PRODUCT NAME	
PROJECT						SPECIFICATION REFER	IS: 4985:2000 with latest amendment.

Sr. No.	Clause No.	Name of the test / operation	Measurement Technique/ Type of Instrument used	Unit Of Measurement	Extent of Check	Ref. Standards	Requirement	Manufacture	TPI	REMARK
1. RAW MATERIAL										
RAW MATERIAL NAME AND GRADE:- UNPLASTICIZED POLUVINYL CHLORIDE										
1	6	a) Unplasticized polyvinyl chloride			One per lot	IS 4985:2000 IS 10148		P	R	If Manufacturer Test Certificate received for each batch of Raw material further testing would not be necessary.
2		b) ADDITIVES				IS 10148		P	R	
3	6.1.1	VCM Content				IS 4985:2000 IS 10151		P	R	
4	6.1.2	PVC RESIN (K VALUE)			-	IS 4669:1968		P	R	
2. INPROCESS INSPECTION										
5	10.1 & 10.1.1	Appearance	Visual	-	100.00%	IS-4985:2000	When viewed without magnification, the internal and external surfaces shall be smooth, clean and free from scoring, cavities and other surface defects which may affect pipe performance. The pipe ends shall be cut cleanly and square to the axis of the pipe.	P	W	In process 100 % check will be done by TPI.
6	7.1.3	Mean Outside Diameter	Pt tape and Vernier Caliper	mm	10 sample per m/c per shift	Cl. 7.1.3 of IS 4985:2000		P	W	
7	7.1.2	Wall Thickness	Micrometer and Dial thickness gauge	mm	-do-	Cl. 7.1.2 of IS 4985:2000		P	W	
8	7.1.4	Length of pipes	Length Measuring tape	Mtr.	-do-	Cl. 7.1.4 of IS 4985:2000		P	W	
9	13.1.1	Marking	Visual	-	100.00%	IS 4985:2000	Printing done by Inkjet printers in black colour and Minimum data for marking shall be taken from CL 13 of IS 4985:2000	P	W	Marking shall be (e.g.) MTRS. VECTUS B.NO. M/c DDMMYY XXXXDate Of Mfg. DDMMYY "

For (Stamp & Signature)	For (T.P.I.) (Stamp & Signature)	For VECTUS IND LTD (Manufacturer) (Stamp & Signature)	QAP No.: VECTUS/ AGRI/QAP/01
			Revision No. :
			Sheet No. : of 2

Sr. No.	Clause No.	Name of the test / operation	Measurement Technique/ Type of Instrument used	Unit Of Measurement	Extent of Check	Ref. Standards	Requirement	Manufacture	TPI	REMARK
3. FINAL INSPECTION & TESTING										
10	12	Sampling Procedure	-	-	-	Clause 12 Annex-D of IS 4985:2000	Table 13, 14, 15, 16 & 17 of IS 4984:2000	-	-	
11	10.1 & 10.1.1	Appearance	Visual	-	-	IS 4985:2000	When viewed without magnification, the internal and external surfaces shall be smooth, clean and free from scoring, cavities and other surface defects which may affect pipe performance. The pipe ends shall be cut cleanly and square to the axis of the pipe.	P	W	
12	7.1.3	Mean Outside Diameter	Pi tape and Vernier Caliper	mm	-do-	Cl. 6.1 of IS 14885-2001 Table -3	According to nominal size of products given by customer	P	W	
13	7.1.2	Wall Thickness	Micrometer and Dial thickness gauge	mm	-do-	Cl. 6.1 of IS 14885-2001 Table -4 & 5	According to nominal size of products given by customer	P	W	
14	7.1.4	Length of pipes	Length Measuring tape	Mtr.	-do-	Cl.-6.4	According to nominal size of products given by customer	P	W	
15	11 & Tab 6 & 7	Hydrostatic Strength at M/C, 27°C water bath, Hydrostatic fittings	Hydrostatic pressure test	-	-do-	IS 4985:2000	No sign of localized swelling, No leakage or bursting	P	W	
16	10.4	Heat Reversion	Hot air oven , Vernier caliper	%	As per clause 10.4,	IS 4985:2000	≤ 5 %, no effect on surface.	P	W	
17	10.63	density	Weight balance, Thermometer conditioned room	kg/m ³	-do-	IS 13360	1.40 – 1.46 Gm/cc	P	W	
18	11.2	Resistance to external blow 0°	As per IS	-	-	Is 4985:2000		P	W	
19	10.5	VSP	VSP TESTER		-do-	IS4985	>80°C	P	W	
20	10.7	Sulphated Ash Content	Muffle furnace, Weight balance.		-do-	Is 4985 Tab-15	Not exceed 11 percent	P	W	
21	10.2	Opacity	Opacity tester		-do-	IS 12235 PT-3	Not transmit More than 0.2 percent	P	W	

LEGENDS: P = PERFORM, W = WITNESS, R = REVIEW. TPI = Third party Inspection Agency

For (Stamp & Signature)		For (T.P.I.) (Stamp & Signature)		QAP No.: VECTUS/ AGRI/QAP/01	
				Revision No. :	
				Sheet No. : of 2	



For VECTUS IND LTD (Manufacturer)
(Stamp & Signature)

Vectus Industries Limited				Ref No. :- VIL B-II/BIS /F-01		
22,26,27 Industrial Area Banmore Dist.Morena(M.P.)				REV. :01		
QAP				Effective date : 01.01.2017		
Rotational Moulded Polyethylene Water Storage Tanks				DOC: STI / 12701 / 3		
According to IS 12701:1996 Reaffirmed 2006				Page:- 01 of 02		
TEST DETAILS				LEVELS OF CONTROL		
Clause (CL.)	Requirement	Test Method	Test Method	NO.OF Samples	Frequency	Remarks
	Raw Material	Clause	Reference			
4.1 & 4.2	Polyethylene Material					
4.2.1	Density	5.2.1.1	IS 7328:92 & Annex A	ONE	Each batch of material received	
4.2.2	Melt Flow Index	7.0	IS 2530:63	-	-	
4.2.3	Carbon Black Content & Carbon Black Dispersion	10	IS 2530:63	ONE	Each Batch Of Material Or Each Control Unit Of Tanks /Lids As The Case may be	
5	Dimension (Except Thickness), Net & Gross Capacities & weight	5.1 5.2 5.3 5.5	IS 12701:1996 FIG 1 & 2 Table 1 & 2	ONE	20 Tanks Or Part there Of from Each Control Unit	
5	Thickness & Colour	5.4 IS 12701:1996 & 5.5 & 5.6 Table 1,2	IS 12701:1996 & Table 1,2	ONE	Each control unit	
6	Finish	6.1	IS 12701:1996		Each Storage Tank	
7.1	Resistance to Deformation	Annex B	IS 12701:1996	TWO	Each control unit	
7.2	Resistance to Impact	Annex C	IS 12701:1996	TWO	DO	
7.3	Top Load Resistance (Applicable for tank of Net Capacity 1500 Litres & Above)	7.3.1	IS 12701:1996	TWO	DO	
7.4	Tensile Strength	7.4.1 7.4.2	IS 8543 (PT.IV)/ SEC 1):1984	ONE	Each control unit	
7.5	Flexural Modules	7.5.1	IS 13360 (PT 5)/ SEC 7:1995	ONE	DO	
7.6	Overall Migration (See Note-1)		IS 9845:1986	ONE	Once In Three Months	
9.1	Man Hole /Hand Hole Lids	9.1 9.2 9.3	IS 12701:1996	ONE	20 Lids Or Part There Of from Each Control Unit	
Prepared By				Approved By		
Navin Paliwal				G.M.(Operation)		

Manufacturer		VECTUS INDUSTRIES LTD. KASHIPUR				CONTROL PLAN		Product Name	CPVC Pipes for hot & cold water distribution supply	
Control plan no.								Specification Refer	IS 15778:2007	
No.	Clause no.	Test parameter	Requirements	Reference Standard	Sampling mode for manufacturer	Insp. by Manf.	Name of calibration unit			
1	6.3	Material designation	-	-	-	-	-			
2	6.2.1 & Annex B	Chlorine content (resin)	shall not less than 66.5%	Annex-B of IS 15778:2007	one, each consignment	R	Manf. T/C Review			
3	6.3	Compound properties	-	Cl.4.2.1 of IS 15225	one, each consignment	R	Manf. T/C Review			
4	6.3.1 & Annex B	Chlorine content (compound)	shall not less than 55%	Annex-B of IS 15778:2007	one, each consignment	R	Manf. T/C Review			
5	6.3.2 & Annex C	Verification of the malfunctioning temperature Tmax	shall not leakage during testing	Annex-C of IS 15778:2007	one, each consignment	R	Manf. T/C Review			
6	6.3.3	Material Density	1.45 to 1.65 gm/cm³	IS 13360 (Part3/Sec1)	each consignment	R	Manf. T/C Review			
7										
		Outer diameter	Table-2 of IS 15778	IS 15778:2007 or IS 12235 (pt1):2004	10 sample/48 hrs.	P				
		Outer diameter at any point	Table-2 of IS 15778	IS 15778:2007 or IS 12235 (pt1):2004	10 sample/48 hrs.	P				
		Out of roundness	Table-2 of IS 15778	IS 15778:2007	10 sample/48 hrs.	P				
		Wall thickness	Table-2 of IS 15778	IS 15778:2007	10 sample/48 hrs.	P				
8		Length of straight pipe	Pipes shall be supplied in nominal length of 3.5 or 6 mtr. Tolerance on specified length shall be +20 mm and (-) 0 mm..	IS 15778:2007	10 sample/48 hrs.	P				
		Pipe end	shall be cleaned & square to the axis of pipe	IS 15778:2007	10 sample/48 hrs.	P				
		Colour	shall be off white	IS 15778:2007		P				
9	9.1	Visual appearance	the internal & external surface shall be smooth	IS 15778:2007	each pipe	P				
PHYSICAL, CHEMICAL & MECHANICAL TEST REQUIREMENTS										
10	9.2	Opacity	Max. 0.20%	IS 12235 :2004 part 3	2, Once in three month	R				
11	9.3	Effect on water composition	shall not have any detrimental effect on the composition	Cl.10.3 of IS 4985	3, Once in six month	R	Out side perform			
12	9.4	Reversion test	Max 5%	IS 12235 :2004 part 5	Three, each control unit	P				
13	9.5	VST	Max 5%	IS 12235 :2004 part 5	Three, each control unit	P				
14	9.6	Density	Min 110°c	IS 12235 :2004 part 2	2, Once in three month	R				
			1.45 to 1.65 gm/cm³	IS 12235 :2004 part 14	Two, each control unit	P				
15	10.1	Hydraulic Characteristic Acceptance test	shall not burst or leakage during prescribed test period.	IS 15778 & IS 12235 part 8/sec1	One, each control unit	P				
16	10.1	Hydraulic Characteristic Type test	shall not burst or leakage during prescribed test period.	IS 15778 & IS 12235 part 8/sec1	1, Once in three month	P				
17	10.2	Hydraulic Characteristic thermal stability by hydrstatic pressure testing	shall not burst or leakage during prescribed test period.	IS 15778 & IS 12235 part 8/sec1	1, Once in three year	P				
18	10.3	Resistant to external blow at 0°c	TIR less than or equal to 10 %	IS 4985	each control unit	P				
19	10.4	Flattening test	no sign of cracking,splitting & breaking	IS 12235 :2004 part 19	one, each control unit	P				
20	10.5	Tensile strength	Min 50 Mpa	IS 12235 :2004 part 13	one, each control unit	P				

Note :- 2) Legends : P= Perform, R= Review, W= Witness, Amend = Amendment

Prepared BY
Quality Dept.



Approved by
General Manager (Works)

	MANUFACTURER:		QUALITY ASSURANCE PLAN			PROJECT:-				
	VECTUS INDUSTRIES LIMITED UNIT-II		ITEM DESCRIPTION:			CLIENT:-				
			SPECIFICATION DETAILS: IS:13592: 2013			P.O No. :				
						CONSULTANT:-				
						CONTRACTOR:-				

Sr. No.	Clause No.	Name of the test / operation	Measurement Technique/ Type of Instrument used	Unit Of Measurement	Extent of Check	Ref. Standards	Requirement	VECTUS	TPI	REMARK
1. RAW MATERIAL										
RAW MATERIAL NAME AND GRADE:- UNPLASTICIZED POLYVINYL CHLORIDE										
1	6	a) Unplasticized polyvinyl chloride		--	One per lot	IS 13592:2013	If Manufacturer Test Certificate received for each batch of Raw material further testing would not be necessary.	P	R	If Manufacturer Test Certificate received for each batch of Raw material further testing would not be necessary.
2	6.1,6.2,6.3	b)ADDITIVES		--	One per lot	IS 13592:2013		P	R	
3		VCM Content		--	One per lot	IS 13592:2013		P	R	
4		PVC RESIN (K VALUE)		--	One per lot	IS		P	R	

2. Physical Test

5	8.1	Visual Appearance	Visual	-	100.00%	IS 13592:2013	When viewed without magnification, the internal and external surfaces shall be smooth, clean and free from scoring, cavities and other surface defects which may	P	W	In process 100 % check will be done by TPI.
6	7.1	Mean Outside Diameter	Pi tape and Vernier Caliper	mm	As per Sample Plan	IS 13592:2013	Maufacture test report	P	W	
7	7.1	Wall Thickness	Micrometer and Dial thickness gauge	mm	-do-	IS 13592:2013	Maufacture test report	P	W	
8	7.2	Length of pipes	Length Measuring tape	Mtr.	-do-	IS 13592:2013	Maufacture test report	P	W	
9	7.3.1, 7.3.2	Socket of Pipe	Micrometer and Vernier Caliper	mm	-do-	IS 13592:2013	Maufacture test report	P	W	

MANUFACTURER

QA/QC

CLIENT / TPI

10	14.1	Marking	Visual	-	100.00%	IS 13592:2013	Printing done by Printer wheel in blue and white colour, Minimum data for marking shall be taken	P	W	Marking shall be (e.g.) 3 MTRS. VECTUS B.NO.
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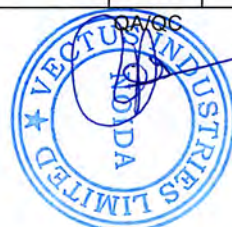
3. FINAL INSPECTION & TESTING

11	12	Sampling Procedure	-	-	ANNEX C	IS 13592:2013	Table No. 7,8,9,10,11,12	-	-	
12	8.2	Reversion Test	Hot air oven , Vernier caliper	%	-do-	IS 13592:2013 & IS 12235 (PART 5)	≤ 5 %, no effect on surface.	P	W	
13	8.3	Stress Relief Test	Hot air oven , & Oil bath	%	-do-	IS 13592:2013 & IS 12235 (PART 6)	Not more then 20 % of actual wall thickness	P	W	
14	8.4	VICAT SOFTNING TEMPRATURE	VSP TESTER	C ⁰	-do-	IS 13592:2013 & IS 12235 (PART 2)	≥ 80 ⁰ C	P	P	
15	8.5	Effect On Sun light	--	--	-do-	IS 13592:2013 & IS 12235 (PART 13)	Shall not show dirrerence of more then 20 %	P	P	
16	9	Resistance to Sulphuric acid	H ₂ SO ₄ AND BEAKER		-do-	IS 13592:2013 & IS 12235 (PART 7)	MassChange + 0.32 (Max) - 0.13 Min	P	W	
17	10.1	Resistance to External Blow at 0°C	Impact Tester and Deep Frizer		-do-	IS 13592:2013 & IS 12235	Not exceed 10 percent	P	W	
18	10.2	Tensile Strength	UTM		-do-	IS 13592:2013 & IS 12235	≥ 45 Mpa	P	W	

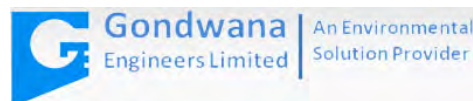
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Our Private Sector Clients



Our Govt. Sector Clients

