

VASAA
A SYMBOL OF TRUST...



VASAA INDUSTRIES
THE COMPLETE PIPING SOLUTIONS

Corporate Profile

VASAA is a flagship group established in 2016 by the people who master in all the intricate techniques and subtle nuances of their business having an outstanding experience of more than 25 years to their credit in dealing with plastic and related materials. Hence, they know every minute detail of the product.

Our company has now emerged as a market leader in manufacturing of HDPE Pipes, PLB HDPE Duct, MDPE Pipes, uPVC Pipes, PVC-U, PVC-O Pipes under the registered brand name of VASAA. In fact, customer's faith and confidence is a testimony for us to prove our company's steadfast nature and reliable quality of products. Our company produces complete product range in the field of plastics, HDPE Pipes for Electrical, Water & Sewerage, PVC-U for Sewerage, uPVC Pipes for Water, PLB HDPE Duct for telecommunications, HDPE Sprinkler Irrigation System, MDPE Pipes for Water Supply, PVC-O Pipes for Water Supply etc.

Vasaa is licensed by Bureau of India Standard to mark ISI Certifications on different range of products having different Licence numbers. Moreover, Vasaa is an ISO: 9001:2015 certified organization with a standing of total commitment towards satisfying their customers with best quality products.

Vasaa, though its vision of learning and constant innovation, has become a premier name in the Industrial, Agricultural, Infrastructure, Domestic and Telecommunication fields.

Manufactured in "State-of-the-art" plant at Jaipur in India, with the latest manufacturing technology and under strict quality control, VASAA brand products have made their mark in various application, be it water supply, sewage disposal, Electric Cable installation and Telecommunications.

For VASAA, a satisfied customer is the mark of its success.



Infrastructure

Under one roof, Vasaa has to its account the production of a huge range of products starting from the pipelines to all the extensive accessories aiding their products. May it be the fittings, tools or any smallest possible accessory... you think it, they make it. Our High-Tech work-arena is beautified with the most sophisticated machinery from the brands like Kolsite in collaboration with Battenfield.

Vasaa ingenious production procedure is equipped with generous quality control measures. The in-house testing services employ several dexterous operators and engineers for the quality control and for that matter, Vasaa has a well- equipped laboratory too. Here the quality control cell puts Supreme quality checks at three stages Raw material, Online production and the Finished product, ensuring perfection and flawlessness. With a huge storage space for Raw material as well as Finished products.

Vasaa occupies a handsome industrial area at a posh RIICO Industrial Area, Ramchandrapura, Sitapura Extn. locality in Jaipur (India).

With a perfect hold on the business, the market and the impressive infrastructure they offer their customers, the most competitive prices and highest quality.



PLB HDPE Ducts

TEC STANDARD NO. TEC 72030:2019
(EARLIER TEC GR Spec. No. TEC/GR/FA/CDS-008/04/AUG-19)

CONSTRUCTION : Permanently Lubricated HDPE Ducts (PLB HDPE Duct) are formed by co-extrusion technique and are used for laying Optical Fiber Cables as underground ducting / conduits.

MATERIAL : The base raw material being used for the manufacturing Permanently Lubricated Ducts is High Density Polyethylene. The grade of raw material is ultra violet grade and is confirming to IS: 7328-1992 & IS: 2523-1974 or ISO: 1183 & ISO: 1133 and is designated as PEEWA-50T-012 (CACT Approved) and inner layer permanently lubricated material DOW CORNING Grade-50MB002.

APPLICATIONS : Telecommunication, Computer Network, Automatic Signaling, Railways Information Network. Highways, Cable Service Providers, Broad Band networks, Electric cable installation etc.

ADVANTAGE :

- Reduction of stress on cable during installation.
- Installation of Longer lengths made feasible.
- Negotiations of cable movement through bends and deflections are easier.
- Reduction of number of joints and minimizes number of splices.
- Faster and easy installation of cable with lesser man power.
- Reduction of overall cost of installation, maintenance and future upgrades.
- Retains its properties throughout its life.
- Existing cables can be deployed after de-blowing from the duct.
- This does not have toxic and dermatic hazards and is safe handling.

Dimensions : (DOT & ISO) all sizes in mm

S.No	Duct Size	Outer Dia	Ovality (Max)	Wall Thickness	Standard Length
1	32/26	32+0.3	1.3	3.0±0.2	500/1000 Mtrs.
2	40/33	40+0.4	1.4	3.5±0.2	500/1000 Mtrs.
3	50/42	50+0.5	1.4	4.0±0.3	500 Mtrs.
4	63/50	63+0.6	1.5	6.5±0.4	500 Mtrs.
5	75/65	75+0.7	1.6	4.3±0.7	300 Mtrs.
6	90/79	90+0.9	1.8	5.1±0.8	200 Mtrs.
7	110/96	110+1.0	2.2	6.3±1.0	150 Mtrs.

PROPERTIES :

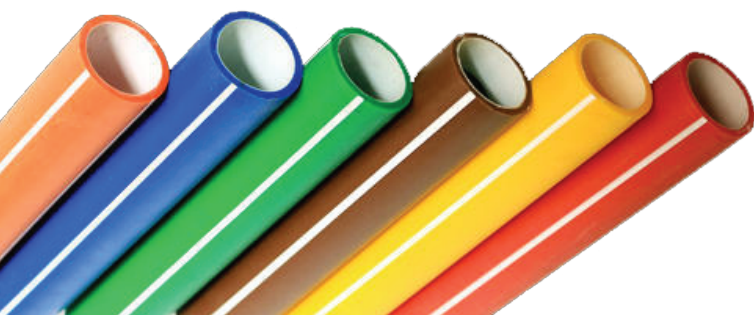
TEC STANDARD NO. TEC 72030:2019
(EARLIER TEC GR Spec. No. TEC/GR/FA/CDS-008/04/AUG-19)

S.No.	Test Description	Test Method	Test Requirements
1	Dimension (a) Outside diameter (b) Ovality (c) Wall thickness	TEC/GR/FA/CDS-008/04/AUG-19	As per Table
2	Visual Inspection	TEC/GR/FA/CDS-008/04/AUG-19	As per Specifications
3	Density at 23 °C GMS/CC	IS : 7328, IS : 2330	0.940-0.958
4	Melt Flow Index at 190 °C	IS : 7328, ISO : 1133	0.2 to 1.1
5	Tensile Strength at yield	IS : 14151-Part-1, ISO : 6259	Min 20N/mm ²
6	Elongation at Break	IS : 14151-Part-1, ISO : 6259	Min 500%
7	Co-efficient of Friction	IS : 14151-Part-1, ISO : 6259	<0.06
8	Impact Strength	IS : 14151-Part-1, ISO : 6259	No Split or Crack
9	Oxidation Induction time	IS : 14151-Part-1, ISO : 6259	>30 Minutes
10	Environmental Stress & Crack Resistance	ASTMD-1693	No Split or Crack
11	Heat Reversion	IS : 4984	Change < 3%
12	Internal Hydrostatic Pressure creep repture	IS : 4984 & ISO : 1167	Passes

All above mentioned test on PLB HDPE DUCTS are conducted in-house as per TEC GR Specification No. TEC/GR/FA/CDS-008/04/AUG-19

ASSOCIATED ACCESSORIES & TOOLS :

- | | | |
|---|--------------------|--|
| 1 | Plastic Coupler | To join two duct lengths- air tight and water tight. |
| 2 | End Plug | To seal duct ends prior to the installation of the cable. |
| 3 | Cable Sealing Plug | To seal duct ends after insertion of the cable. |
| 4 | End Cap | Made of hard rubber, fitted on both ends of duct coil after manufacturing. |
| 5 | Duct Cutter | To cut duct cleanly and with square ends. |
| 6 | C Spanner | To tighten plastic coupler. |



HDPE Pipes & Coils

IS:4984-2016

MATERIALS : It is made of either of three grades of High Density Polyethylene polymers. i.e. PE-63, PE-80 or PE-100

PRODUCT RANGE: These HDPE pipes are available in sizes 20 mm to 400 mm in pressure rating of PN-2 to PN-20 (SDR-41 to SDR-6) in all three grades PE-63, PE-80 and PE-100.

APPLICATIONS : These pipes are used for water mains & services and for water supply over & under ground and, both inside & outside building

ADVANTAGE :

- Resistance to chemicals- Exceptional resistance to all external and internal corrosion.
- Resistant to electrolytic corrosion.
- Will not rust or rot.
- Very good thermal insulation due to low thermal conductivity.
- Perfect stability of material obviates the risk of ageing and ensures long service life.
- Total neutrality to products conveyed.
- Low maintenance cost.
- Easy to install.
- Longer life than G.I, M.S cement and other pipes
- Flame resistance classifying the material as self-extinguishing according to test standard employed.
- Welded joints speedup installation- Trench widths reduced which leads to saving in the cost of excavation and back filling.
- Smooth bore provided less head loss. Flow resistance is approximately 30 % less than that of conventional pipes, permitting the use of a smaller bore pipe for a given rate of flow.



HDPE Pipes For Sewerage

IS:14333-1996

CONSTRUCTION: Vasaa manufactures HDPE Pipes & Coils by High Density Polyethylene polymers in all three grades i.e. PE-63 PE-80 & PE-100 conforming to IS: 14333-1996 with latest amendments.

ADVANTAGE :

- Excellent Slow Crack Growth Resistance properties.
- Superior hydrostatic strength and durability for long life.
- Excellent chemical resistance.
- Lightweight and highly flexible for faster, easier installations.
- Outstanding flexibility and crush resistance.
- Fusion welded jointing provides leak-free monolithic pipe systems.
- Does not support microbial growth, eliminating tuberculation- inner wall scale Build- Up, flow properties remain strong for life of pipe.
- Non-corroding, unlike metallic pipes.
- Resistance to electrolyte corrosion.
- Will not rust or rot.
- Welded joints speedup installation trench widths reduced which leads to saving in the cost of excavation and back filling Resistance to chemicals -Exceptional resistance to all external & internal corrosion.

PRODUCT RANGE :

Vasaa HDPE Pipes available in wide range DN 63 mm to DN 400 mm with pressure rating PN-2.5 to PN-16 respetvely in i.e. PE-63, PE-80 & PE-100.

APPLICATION :

- Sewer collection network
- Industrial Effluent Disposal
- Reclaimed Water
- Rehabilitation of existing sewers.



Oriented Unplasticized Polyvinyl Chloride (PVC-O) Pipes For Water Supply.

IS: 16647-2017

Introducing PVC-O Pipes: Revolutionizing Plastic Pipe Manufacturing

Over the past few years, technological advancements have transformed the plastic pipe industry. Vasaa, a pioneer in Indian plastic pipe manufacturing, introduced PVC-O pipes in 2024, adhering to BIS standards outlined in IS: 16647-2017.

What are PVC-O Pipes?

PVC-O pipes boast enhanced mechanical properties, governed by international standards for pressure specifications up to 25 bars. The orientation degree defines the PVC-O class, with better properties attained at higher class levels.

Key Benefits of PVC-O Pipes

01. Improved Hydrostatic Strength: Evaluated through extended-period testing.
02. Axial and Hoop Orientation: Achieved through Vasaa's technology, providing complementary advantages.
03. Impact Resistance: Enhanced by hoop orientation.
04. Internal Pressure Resistance: Excellent performance.
05. Long-Term Performance: PVC-O Class - 500 exhibits reduced creep.
06. Durability: Resistant to bursting, scratches, and crack propagation.
07. Flexibility: Instantly regains shape after mechanical mishaps.
08. Lightweight: 6-12 times lighter than flexible iron pipes.

Advantages over Other Materials

01. Easy Handling: No machinery required.
02. Enhanced Hydraulic Capacity: Reduced wall thickness, larger diameter, and flow section.

Vasaa's PVC-O Class - 500 Pipes

- Unmatched performance and durability
- Ideal for high-pressure applications
- Reliable, efficient, and cost-effective solution



PVC-U Underground Drainage & Sewerage Pipes

IS: 15328-2003

Vasaa manufactures unplasticized non- pressure Polyvinyl Chloride Pipes specifically to use in Underground Drainage & Sewerage Systems as per IS: 15328-2003 with latest amendments. These pipes are colour coded Brown (any shade of Brown) & are available in plain as well as elastomeric sealing ring type and either use solvent cement or slide fit respectively for installation.

APPLICATION :

These pipes are designed to carry the soil & waste from the SWR Drainage Systems to appropriate drains or sewer through an underground network of pipes.

Unplasticized PVC Pipes For Potable Water Supplies

IS: 4985-2000

CONSTRUCTION These pipes are made of unplasticized polyvinyl chloride (uPVC). In requirements for plain as well as socket ended pipes including these for use with elastomeric sealing ringis for potable water supplies conforming to IS:4985-2000 with latest amendments.

ADVANTAGES OF ELASTOMERIC RING FIT uPVC PIPES : These pipes are specially designed and suitable to overcome difficulties experienced while jointing solvent type pipes in higher diameter and also use for carrying drinking water as they do not subject

- As elastomeric sealing rings are used, requirements and precautions associated with quality and quantity of solvent cement are avoided.
- Unlike solvent type joints, curing, periods are not required and hence pipelines can be tested and brought in use immediately after jointing.
- Pipes laying and jointing are very easy, quicker and more reliable. Pipes up to 140 mm size can be joint by hand force but large diameter pipes required a jack.
- Joints are stable, watertight and can resist loads from horizontal and vertical attractive forces.
- Joints can accommodate angular deflection up to 2 and axial displacement resulting from thermal expansion and contraction, which eliminates the need of expansion joint as required in solvent type joints.
- Joints can be made in any climatic condition.



HDPE Sprinkler System & Sprinkler Irrigation System

IS:17425-2020

(EARLIER IS: 14151-1999(Part-I) & IS:14151-2008(Part-II))

Agronomists all over the world believe that the sprinkler irrigation system is the best method to get maximum yield at an extremely low cost. Using sprinkler system can irrigate 2 to 3 time more farm land with same quantity of water. The sprinkler system cleans the surface of the plants, which help in easy photosynthesis thus making plants able to produce more. It saves from irregularities of the weather. In winters it saves from freezing of water. In summers it saves evaporation of water up to 40%.

The Sprinkler effect (like rain) saves water from flowing away and maximum water reaches to the roots of the plants. It spreads water around the farm in equal quantity thus saving plants from bad effects of water clogging and water scarcity. With Sprinkler Irrigation System

CONSTRUCTION : High Density Polyethylene is the most popular variety of polymers. Vasaa sprinkler pipe is made of HDPE plastic material. It is the recommended material for the manufacture of high pressure pipes and is renowned worldwide for its reliability. The characteristics that make it outstanding are its toughness, its resistance to chemical attack and its immunity to weather conditions. This makes it an excellent material to convey water. the roots of the plants. It spreads water around the farm in equal quantity thus saving plants from bad effects of water clogging and water scarcity. With Sprinkler Irrigation System

PRODUCT RANGE : VASAA sprinkler pipes are available in 63 mm to 200 mm diameter and pressure rating class I, II, III, IV and Part I and part II. PN-2.5 and PN-3.2, PN-4.0, PN-6.0 with complete range of fittings.

Properties

M.F.I.(190°C, 5kg load)
 Specified base density
 Material Grade
 Carbon Blank
 Antioxidant
 Tensile strength (min) (27 ± 2°C)
 Elongation
 Reversion
 Hydraulic Characteristics

Value

0.4l to 1.1gm/10 mins
 940.4 to 946.4 Kg/mtr³
 PE-63, PE-80, PE-100
 (2.5 ± 0.5%)
 <0.5% by mass
 19MPa (Testing speed = 100mm/min 10%)
 >350%
 <=3%
 No sign of localized swelling. leakage or weeping
 (at 80°C for 165 & 48 hrs.)



MDPE Pipes

IS: 4427-2 : 2007

Inherent characteristics of MDPE such as corrosion & crack resistant, tough and flexible makes Polyethylene piping systems the most preferred means for transportation and distribution of water, petrol and natural gases worldwide.

MATERIAL : The raw material used is Medium Density Polyethylene (MDPE). VASAA Pipes manufactures pipes in grades PE-80 & PE-100 for water supply in sizes 20 mm to 400 mm (Outer Diameter) in all pressure ratings.

SPECIFICATIONS : VASAA Pipes manufactures MDPE pipes which confirms to national and International standards as ISO-4427, IS-14885, BS-7281, DIN-8074/75. VASAA pipes can also be tailor made to meet the specific requirement of individual authorities or customers.

SALIENT FEATURES :

- Flexible : Easy to Handle
- Corrosion : Tough and highly reliable in aggressive soils.
Resistant
- Fusion Joints : High Integrity and reliability
- Light Weight : lighter in weight as compared to metal pipes.
- Crack Resistant : Excellent resistant to subsidence, traffic vibrations point leading and marshy ground.
- Homogenous : leakage free joints.
- Installation : low Installation cost.

Characteristics	Units	Requirements	Test Parameters	Test Methods
Conventional Density	kg/M3	> 930 (base polymer)	23° C	ISO-1183, ISO-1872/1
Melt Flow Rate	G/10 min.	940 - 958	190° C / 5kg	ISO-4440/1, IS-2530: 1963
Thermal Stability	Min.	> 20	200° C	ISO / TR-10837
Hydrostatic Strength	h	Failure time>=100h Failure time>=165h Failure time>=1000h	PE-80-9.0 MPa - 20°C PE-80-4.6 MPa - 80°C PE-80-4.0 MPa - 80°C	ISO -1167
Elongation at Break	%	>=350		ISO-6259/3



VASAA INDUSTRIES

Regd. Office / Factory :
SP-1-2316, RIICO Industrial Area, Ramchandrapura,
Sitapura Extn., Jaipur-302022, Rajasthan (INDIA)

Correspondence Add :
A-130(H), Road No. 9D, V.K.I. Area,
Jaipur - 302013 (Rajasthan) (INDIA)

E-mail:- info@vasaa.co.in
Mob:- +91 93141 15550

THE COMPLETE PIPING SOLUTIONS