

TIJARIA



THE COMPLETE
PIPING SOLUTIONS

**TIJARIA**

Corporate Profile

Tijaria group, success has always been flowing in our pipelines!!

Tijaria is a flagship group established in 1982 by the people who master all the intricate techniques and subtle nuances of their business having a outstanding experience of more than 34 years to their credit in dealing with plastic and related materials. Hence, they know every minute detail of the product.

Under the guidance of our founder Late Shri Daulatram Jain Tijaria and dynamic & exceptionally impeccable leadership of Mr. Ramesh Jain Tijaria, the Chairman and Mr. Alok Jain Tijaria, the Managing Director, has made Tijaria polypipes Ltd. a brand leader company in the cosmic market.

Company has now emerged as a market leader in manufacturing of HDPE, MDPE, LDPE, LLDPE, uPVC and PPR pipes, under the registered brand name of "TIJARIA & VIKAS." In fact, customer's faith and confidence is a testimony for them to prove their company's steadfast nature and reliable quality of products. The company produces a complete product range in the field of plastics, HDPE Sprinkler Irrigation System, Drip Irrigation System, Micro Irrigation System, uPVC Pipe & Fitting, PVC-U Pipe, Sewerage Pipe & Fitting, uPVC Conduit Pipe & Fitting, DWC Pipe & HDPE PLB duct etc.

Tijaria is licenced by Bureau of India Standard to mark ISI Certification on different range of product having different licence numbers. Moreover, Tijaria is an ISO: 9001:2008 Certified organization with a standing of total commitment towards satisfying their customer with best quality products.

Tijaria, though its vision of learning and constant innovation, has become a premier name in the Industrial, Agricultural, Infrastructure, Domestic and Telecommunication fields."TIJARIA & VIKAS" are the quality brands of Tijaria group.

Manufactured in "State-of-the-art" plant at Jaipur in India, with the latest manufacturing technology and under strict quality control, Tijaria / Vikas brand products have made their mark in various application, be it water supply, gas and petrol transport, sewage disposal or cable ducting.

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





माननीय प्रधानमंत्री डॉ. मनमोहन सिंह जी की अध्यक्षता में विज्ञान भवन दिल्ली में राष्ट्रीय पुरस्कार 2008 ग्रहण करते हुये तिजारिया पोलिपाइप्स लिमिटेड, जयपुर के प्रबन्ध निदेशक आलोक जैन तिजारिया



भारत सरकार
MSME
सूक्ष्म, लघु एवं मध्यम उद्यम

सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
राष्ट्रीय पुरस्कार - 2008
सूक्ष्म एवं लघु उद्यमों में उत्कृष्ट उत्पाद के लिए
(प्लास्टिक एक्सट्रूडेड उत्पाद)
उत्कृष्ट गुणवत्ता उत्पादों के विनिर्माण को मान्यता हेतु
श्री आलोक जैन तिजारिया
मै. तिजारिया पोलिपाइप्स लि.
जयपुर, राजस्थान
को विशेष मान्यता पुरस्कार प्रदान किया जाता है।

Government of India
Ministry of Micro, Small & Medium Enterprises
NATIONAL AWARD - 2008
QUALITY PRODUCTS IN MICRO & SMALL ENTERPRISES
(Plastic Extruded Products)
In recognition of Manufacturing Outstanding Quality Products
Special Recognition Award is presented to
Shri Alok Jain Tijaria
M/s. Tijaria Polypipes Ltd.
Jaipur, Rajasthan

New Delhi
Dated : 28th August, 2009

(Madhav Lal)
ADDITIONAL SECRETARY & DEVELOPMENT COMMISSIONER
(MICRO, SMALL & MEDIUM ENTERPRISES)



माननीया राष्ट्रपति श्रीमति प्रतिभा देवी सिंह पाटील की अध्यक्षता में विज्ञान भवन दिल्ली में राष्ट्रीय पुरस्कार 2010 ग्रहण करते हुये तिजारिया पोलिपाइप्स लिमिटेड, जयपुर के प्रबन्ध निदेशक आलोक जैन तिजारिया



भारत सरकार
MSME
सूक्ष्म, लघु एवं मध्यम उद्यम

सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
राष्ट्रीय पुरस्कार-2010
उत्कृष्ट उद्यमिता
मध्यम उद्यम (विनिर्माण)
उत्कृष्ट कार्यनिष्पादन की मान्यता हेतु
श्री आलोक जैन तिजारिया
मेसर्स तिजारिया पालीपाइप्स लि.
जयपुर, राजस्थान
को विशेष मान्यता पुरस्कार प्रदान किया जाता है।

Government of India
Ministry of Micro, Small & Medium Enterprises
NATIONAL AWARD - 2010
Outstanding Entrepreneurship
Medium Enterprises (Manufacturing)
In recognition of outstanding performance the
Special Recognition Award is awarded to
Shri Alok Jain Tijaria
M/s Tijaria Polypipes Ltd.,
Jaipur, RAJASTHAN

New Delhi
Dated : 2nd September, 2011

(Amarendra Sinha)
DEVELOPMENT COMMISSIONER
(MICRO, SMALL & MEDIUM ENTERPRISES)



राष्ट्रीय-रत्न पुरस्कार
ग्रहण करते हुये
तिजारिया पोलिपाईप्स लिमिटेड,
जयपुर के चेयरमेन
श्री रमेश जैन तितारिया

राष्ट्रीय-रत्न पुरस्कार
ग्रहण करते हुये
तिजारिया पोलिपाईप्स लिमिटेड,
जयपुर के निदेशक
विकास जैन तितारिया



माननीय मुख्यमंत्री
श्रीमान् अशोक गहलोत द्वारा
सम्मान प्राप्त करते हुए
तिजारिया पोलिपाईप्स लिमिटेड,
जयपुर के प्रबन्ध निदेशक
आलोक जैन तितारिया एवं
विकास जैन तितारिया



Conferred on Tijaria Polypipes Limited, Jaipur
for Best Performance In Chemicals & Petrochemicals, Rubber & Plastics Sector
in Medium Enterprises Category

Ramesh Chandra Agarwal
Chairman, Dainik Bhaskar Group

Sumit Arora
Chairman, RIICO, Govt. of Rajasthan



MSME
राष्ट्रीय पुरस्कार
2011 ग्रहण करते हुये
तिजारिया पोलिपाईप्स लिमिटेड,
जयपुर के प्रबन्ध निदेशक
आलोक जैन तितारिया

TIJARIA

Textile Division



*Mink
Blankets*

प्रमाण पत्र • Certificado • Certificat • Zertifikat • شهادة



CERTIFICATE OF REGISTRATION
Quality Management Systems

TIJARIA POLYPIPES LIMITED

Office Add. : 112 (First Floor), Krishna Square, Subhash Nagar Shopping Centre,
Subhash Nagar, Jaipur- 302016, Rajasthan, India
Factory Add.: SP-1-2316, Ramchandrapura Industrial Area, Sitapura Extn.
Jaipur- 302022, Rajasthan, India

Equalitas Certifications Limited Certifies that the Management System of the above mentioned Company has been assessed and meets the requirements established by the following rules:

ISO 9001:2008

The Management System Includes :

Manufacturing & Supply of High Density Polyethylene (HDPE)/
Poly Vinyl Chloride (PVC)/ Un-Plasticized Polyvinyl Chloride (uPVC)/
Unplasticized Non- Pressure Polyvinyl Chloride (PVC-U)/
Linear Low Density Polyethylene (LLDPE)/ Poly Propylene Random (PPR)/
Medium Density Polyethylene (MDPE)/ Double Wall Corrugated (DWC)/
Pre-Lubricated HDPE Pipes (PLB)/ PVC Conduit/ Soil, Waste & Rain Water (SWR)/
Column/ HDPE Sprinkler Irrigation System/ Drip Irrigation System/ PET Sheet/
Partially Oriented Yarn (POY)/ Draw Textured Yarn (DTY)/ Fully Drawn Yarn (FDY)/
Pet Flakes/ Polyester Zipper/ Monofilament/ Blanket

Certificate No: Q-04140728

Original Issue Date: 28 Jul 2014

Issue Date: 28 Jul 2014

1st Surv. Due Before: 14 Jul 2015*

2nd Surv. Due Before: 14 Jul 2016*

Valid Till: 27 Jul 2017

* After successful completion of surveillance audit, new certificate shall be issued.

In the course of validity of the present certificate the enterprise management system must permanently satisfy the requirements of the international regulations. The fulfillment of these regulations will be regularly controlled by Equalitas Certifications Limited.



Director

Equalitas Certifications Limited
URL: www.theeci.com

Accreditation by Joint Accreditation System of Australia and New Zealand (Accreditation No. M44102101)

817, Anasari Kirti Shikhar, 11 District Centre, Janakpuri, New Delhi-110058, India
For precise and updated information concerning possible changes occurred in the certification subjects of the present certificate, please contact: info@theeci.com

Infrastructure

Under one roof, Tijaria 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!! Their High -Tech work-arena is beautified with the most sophisticated machinery from the brands like Kolsite in collaboration with Battenfield, Windsor in collaboration with DGP & Kabra in collaboration with Battenfield.

Tijaria's 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, Tijaria 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.

Tijaria occupies a handsome industrial area at a posh RIICO Industrial Area, Ramchandrapura, Sitapura Extn. locality in Jaipur (India). Tijaria's Research and Development cell helps us to qualify for both Domestic and International market's expectations.

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



QUALITY CONTROL:

Tests carried out at our Lab :

- Dimensional & visual Inspection.
- Tensile Strength at yield & Elongation at break.
- Reversion Test
- Environmental Stress Crack Resistance.
- Impact Strength.
- Crush Resistance.
- Oxidation Induction Time (Thermal Analysis).
- Hydraulic Characteristics.
- Internal Coefficient of Friction.
- Density of the inner layer.
- Thickness of the inner layer.
- Sulphated Ash content of the duct.
- Fading of colors of ducts/Pipes
- Pulling force on duct joined by coupler.
- M.F.I of duct / Pipe
- Density of duct / Pipe
- Opacity.
- Vicat softening temperature.
- Resistance to external blow at 0°C temperature.
- Effect on water
- Weldability Test
- Leakage Test
- Fusion Compatibility Test
- Type Test
- Stress Relief Test
- Overall Migration
- Carbon Black Content and Dispersion Test



PVC-U Underground Drainage & Sewerage Pipes

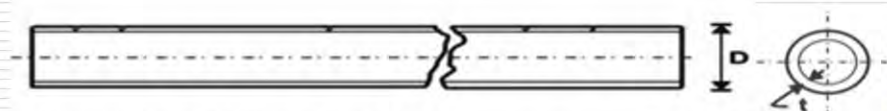
IS:15328-2003

Tijaria manufactures unplasticised 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 & 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.

PRODUCT RANGE: Tijaria/ Vikas Underground Drainage Pipes are available in sizes from 110mm to 400mm OD in pressure rating SN-2, SN-4 & SN-8.

SPECIFICATION: Conforming to IS: 15328-2003 with latest amendments with rubber ring joints as per ISO: 4422 -1992 or DIN 8062 or IS: 5382-1985 & with solvent cement joints as per IS: 14182-1994.



Dimensions and Stiffness Class of U-Drain pipes as per - IS 15328-2003 with latest amendments.



DIMENSION: (As per IS: 15328-2003) all sizes in mm.

Nominal Ring Stiffness SN (KN/M ²)	SN-2	SN-4	SN-8
SDR	51	41	34
OD mm (D)	Wall thickness in mm (t)		
110	-	-	3.2+0.5
125	-	3.2+0.5	3.2+0.7
160	3.2+0.5	4.0+0.6	4.7+0.7
200	3.9+0.6	4.9+0.7	5.9+0.8
250	4.9+0.7	6.2+0.8	7.3+1.0
315	6.2+0.8	7.7+1.0	9.2+1.2
400	7.9+1.0	9.8+1.2	11.7+1.4



HDPE Double Wall Corrugated Pipes

TEC. GR Spec. No. GR/DWC-34/01 SEP2007 with latest Amendments & IS : 14930 (Part-II) 2001

MATERIAL:

TIJARIA DWC Pipes are made of High Density Polyethylene Polymers. The DWC pipes shall consist of two layers, the outer layer will be corrugated and the inner layer shall be plain & smooth.

PRODUCT RANGE:

TIJARIA DWC pipes are available in sizes 50 mm to 200 mm.

APPLICATIONS:

A. Telecom Application:

- Used as the main duct in sub duct network design.
- Protection of ducts and optical fibre cables in city networks.
- Protection of ducts / cables in railway & railway crossings.
- Protection of ducts / cables across rivers disused canals etc.
- Used as casing of copper cables.

B. Electrical applications:

In the electrical networks, protective casing of street lighting cables-pole to pole application. DWC Pipe helps in: Easy laying of cable upon completion of civil works, easy maintenance of cables as free to move inside the duct, easy to replace the cables.

In city distribution network protective casing application of power cables can be possible only after using DWC pipes. It is excellent and cost effective alternative of GI, RCC & PVC Pipes. It can be openly used for protective casing of street light cable as well as telecom cable.

FEATURES / PROPERTIES :

- Resistance to chemical: Exceptional resistance to all internal & external corrosion.
- Will not rust or rot.
- Resistance to electrolytic corrosion.
- Easy to install.
- Longer life than GI, MS & RCC.
- Flexible, can be bent to a radius as low as 10 x OD of the duct.
- Very good thermal insulation due to low thermal conductivity.
- Light weight product for easy transportation, handling and fitting etc.
- Possibility of laying of additional ducts due to aligned joints, continuous length and smooth bends.
- Good mechanical properties and ability to take heavy loads.
- Anti rodent.

STANDARDS :

TIJARIA DWC Duct is BIS certified and is manufactured in compliance with the relevant International and National standards like IS: 14930 and BS EN 50086. Also conforms to BSNL TEC Spec. No. GR/DWC-34/01 SEP2007 with latest Amendments

SIZE RANGE:

S. No.	Duct Size (MM)	Nominal OD	Nominal ID	Standard Length (mtrs)
01	78/63	78	63	6
02	90/76	90	76	6
03	120/103.5	120	103.5	6
04	160/136	160	136	6
05	180/152	180	152	6
06	200/170	200	170	6



HDPE Double Wall Corrugated Structured-Wall Pipes

IS: 16098 (Part-2):2013

HDPE Structured-Wall Plastics Piping Systems With Non –Smooth External Surface (Type-B) with hollow annular profiled outer surface & a smooth inner surface for Non- Pressure Underground Drainage and Sewerage .

MATERIAL: The base raw material being used for the manufacturing of Structured-Wall Plastics Piping System with non smooth external surface (Type-B) is Polyethylene (PE) or Polypropylene (PP).

SPECIFICATION: The Structured –Wall Plastics Piping System & Fitting conforming to IS: 16098 (Part-2): 2013 with latest amendment with or without integral socket and with elastomeric sealing ring joints (as per IS: 5328-2985) as well as welded or fused joints.

PRODUCT RANGE: TIJARIA HDPE Structured -Wall Pipes with non smooth external surface (Type-B) are available in size from 75 mm to 500 mm in Nominal ring stiffness (SN) class SN-4, SN-8 & SN-16.

APPLICATIONS:

- Sewerage/Storm Water Drainage
- Effluents disposal & Industrial Drainage
- Highway & Busy Roads Drainage
- City & Urban clusters
- Storm/Flood Water / Waste Management & Culverts / Pavements drainage
- Drainage & Sewerage in Buildings / Housing Complex / Town Ships / Cantonments / Airport / Hospitals
- Sewerage Treatment Plants (STPs)
- Urban Sewerage Rehabilitation
- Surface & Sub-Surface Drainage



ADVANTAGES: Due to its unique design, the pipes have following Advantages:

- Maximum load bearing strength
- Available in different colors i.e Grey, Orange, Brown & Black on demand.
- Chemical, Corrosion resistant & highly resistant to abrasion
- Strong silt tight & water tight joints helps what stay inside the pipe, inside & what outside stay's outside.
- HDPE corrugated pipe is light, tough and is manufactured in long lengths. This adds up to significant potential for installation cost savings.

PRODUCT INCORPORATED BY VARIOUS DEPARTMENTS:

- Ministry of Urban Development
- County & Town Planners
- MP Urban Development Authority
- Military Engineering Services (MES)
- Mumbai Municipal Corporation
- Maharashtra Jeevan Pradhikaran (MJP)
- Maharashtra Housing Development Board (MAHADA)
- Naya Raipur Development Authority (NRDA)
- National Highway Authority of India (NHAI- IRC)
- Gujarat Water Supply and Sewerage Boards (GWSSB)
- Rajasthan Urban Development Investment Program (RUDIP)
- Delhi Jal Board (DJB)
- Already being used by Major Township builder throughout the country



PLB HDPE Ducts

TEC. GR Spec. No. TEC / GR / TX / CDS-008/03/ MAR-11
With Amendment No. 1 Dated 25/28-03-2013

CONSTRUCTION: Tijaria Permanently Lubricated HDPE Ducts are formed by co-extrusion technique and are used for laying Optical Fiber Cables as under ground 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 & ISO : 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.

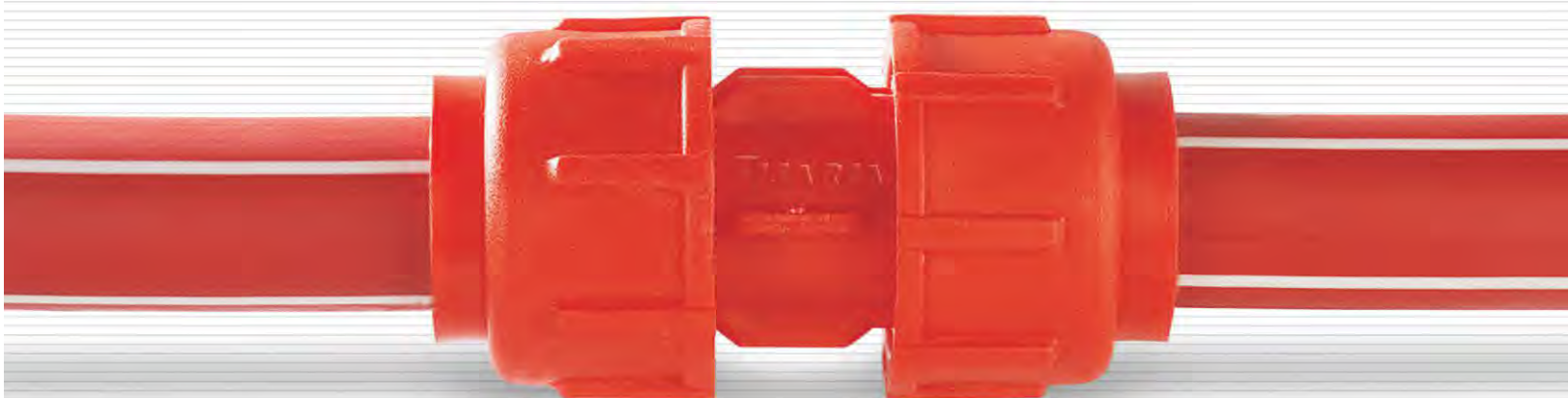
APPLICATIONS: Telecommunication, Computer Network, Automatic Signaling, Railways Information Network. Highways, Cable Service Providers, Broad Band networks, Electric cable installation etc.

ADVANTAGES:

- 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 it's properties throughout it's 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	200/500/1000 Mtrs.
3	50/42	50±0.5	1.4	4.0±0.3	200/ 500 Mtrs.
4	63/57	63±0.6	1.5	3.6±0.6	6/12/50/100 Mtrs.
5	75/65	75±0.7	1.6	4.3±0.7	6/12/50/100 Mtrs.
6	90/79	90±0.9	1.8	5.1±0.8	6 Mtrs.
7	110/96	110±1.0	2.2	6.3±1.0	6 Mtrs.



PROPERTIES:

S.No.	Test Description	Test Method	Test Requirement
1	Dimension:		
	(a) Outside diameter	GR Spec. No. TEC / GR/ TX/ CDS-008/ 03/ MAR-11	
	(b) Ovality	GR Spec. No. TEC / GR/ TX/ CDS-008/ 03/ MAR-11	
	(c) Wall thickness	GR Spec. No. TEC / GR/ TX/ CDS-008/ 03/ MAR-11	As per Table
2	Visual Inspection	GR Spec. No. TEC / GR/ TX/ CDS-008/ 03/ MAR-11	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 - 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 GR specification No. TEC / GR/ TX/ CDS-008/ 03/ MAR-11 with Amendment No. 1 Dated 25/28-03-2013

ASSOCIATED ACCESSORIES & TOOLS:

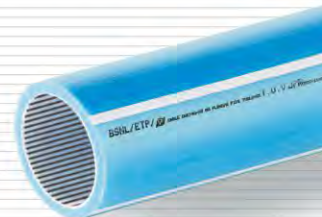
1. Plastic Coupler : To join two duct lengths- air tight and water tight.
2. End Plug : To seal duct ends prior to the installation of the cable.
3. Cable Sealing Plug : To seal duct ends after insertion of the cable.
4. End Cap : Made of hard rubber, fitted on both ends of duct coil after manufacturing.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



Permanently Lubricated HDPE duct



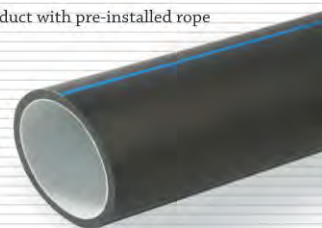
Permanently Lubricated tracer HDPE duct



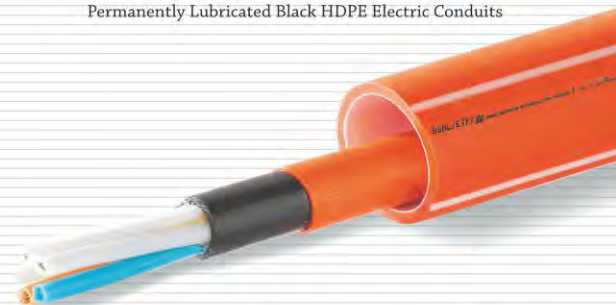
Permanently Lubricated ribbed HDPE duct



Permanently Lubricated HDPE duct with pre-installed rope



Permanently Lubricated Black HDPE Electric Conduits



Permanently Lubricated HDPE duct with pre-installed cable

HDPE Sprinkler Pipe & Sprinkler Irrigation System

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 save 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 farming can be done easily on uneven surfaces.

CONSTRUCTION : HDPE High Density Polyethylene is the most popular variety of polymers. Tijaria / Vikas sprinkler pipe is made of HDPE plastic material. It is the recommended material for the manufacture of high pressure pipes and is renowned world wide for its reliability. The characteristics that makes 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.

PRODUCT RANGE : Tijaria / Vikas 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, PN-3.2, PN-4.0 & PN-6.0 with complete range of fittings

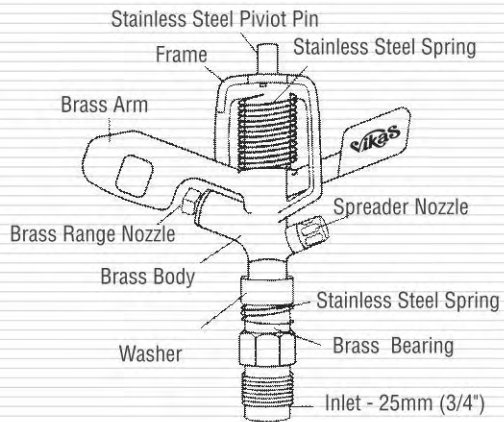
PROPERTIES:

Properties	Value
M.F.I (190°C, 5kg load)	0.20 to 1.1gm/10 mins
Specified base density	940.0 kg/m ³ to 958.0 kg/m ³
Material Grade	PE-63, PE-80, PE-100
Carbon Black	(2.5 ± 0.5%)
Reversion	<=3%
Hydraulic Characteristics	No sign of localized swelling, leakage or weeping (at 80°C for 165 & 48 hrs.)

DIMENSIONS OF POLYETHYLENE PIPES FOR SPRINKLER IRRIGATION (All sizes in mm) : as per IS : 14151-1999 (Part I) with latest amendments.

Nominal Diameter	Outside Diameter	Nominal Tolerance on outside diameter	Ovality	Wall thickness							
				Class-1 (2.5 kgf/cm ²)		Class-2 (3.2 kgf/cm ²)		Class-3 (4 kgf/cm ²)		Class-4 (6 kgf/cm ²)	
				Min	Max	Min	Max	Min	Max	Min	Max
40	40.0	+0.4	1.4	-	-	-	-	-	-	2.3	2.8
50	50.0	+0.5	1.4	-	-	-	-	2.0	2.4	2.9	3.4
63	63.0	+0.6	1.5	-	-	2.0	2.4	2.5	2.9	3.8	4.4
75	75.0	+0.7	1.6	2.0	2.4	2.5	2.9	3.0	3.4	4.5	5.2
90	90.0	+0.8	1.8	2.2	2.6	2.9	3.4	3.5	4.1	5.3	6.1
110	110.0	+1.0	2.2	2.7	3.2	3.4	3.9	4.2	4.8	6.5	7.4
125	125.0	+1.2	2.5	3.1	3.6	3.8	4.5	4.8	5.5	7.4	8.3
140	140.0	+1.3	2.8	3.5	4.1	4.3	5.0	5.4	6.1	8.3	9.3
160	160.0	+1.5	3.2	3.9	4.5	4.9	5.5	6.2	7.0	9.4	10.2
180	180.0	+1.7	3.6	4.4	5.0	5.5	6.3	6.9	7.8	10.6	11.2
200	200.0	+1.8	4.0	4.9	5.6	6.1	7.0	7.7	8.7	11.8	13.2





ACCESSORIES:

- Coupled Bend
- Coupled Tee
- Pump Connecting Nipple (P.C.N.)
- Sprinkler attachment with Foot Batten
- End Cap
- Riser Pipe
- Sprinkler Nozzle



HDPE Pipes For Water Supply

IS:4984-1995

CONSTRUCTION: Tijaria/Vikas HDPE Pipes & Coils are being manufacture by High Density Polyethylene polymers in all three grades i.e. PE-63, PE-80 & PE-100 conforming to IS: 4984-1995 with latest amendments.

ADVANTAGE:

- Resistance to chemicals –Exceptional resistance to all external & internal corrosion.
- 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.
- Smooth bore provide less head loss. Flow resistance is approximately 30 % less than that conventional pipe, permitting the use of a smaller bore pipe for a given rate of flow.
- High impact strength.
- High reliability and proven service performance.
- Greater flexibility, light weight, easy & economical installation.
- Very good thermal insulation due to low thermal conductivity.
- Flame resistance classify the material as self extinguishing according to test standard employed.
- Perfect stability of material obviates the risk of ageing and ensures long service life.

PRODUCT RANGE:

Tijaria / Vikas HDPE Pipes available in wide range DN 20 mm to DN 500 mm with pressure rating PN-2.5 to PN-16 respectively in all grade i.e. PE-63, PE-80 & PE-100 in the length of 6 meters and coil length of 100 meters to 1000 meters accordingly.

APPLICATION:

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

DIMENSION:

As Per IS: 4984-1995 with latest amendment.

Wall thickness of Pipes (PE-63) for pressure ratings of IS:4984-1995 with latest amendments.

Dia DN	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
20	-	-	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.4	4.0
25	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.4	4.0	4.2	4.9
32	-	-	-	-	2.3	2.8	3.0	3.5	3.6	4.2	4.4	5.1	5.4	6.2
40	-	-	2.0	2.4	2.8	3.3	3.7	4.3	4.5	5.2	5.5	6.3	6.7	7.6
50	-	-	2.4	2.9	3.5	4.1	4.6	5.3	5.6	6.4	6.8	7.7	8.4	9.5
63	2.0	2.4	3.0	3.5	4.4	5.1	5.8	6.6	7.0	7.9	8.6	9.7	10.5	11.8
75	2.3	2.8	3.6	4.2	5.3	6.1	6.9	7.8	8.4	9.5	10.2	11.5	12.5	14.0
90	2.8	3.3	4.3	5.0	6.3	7.2	8.2	9.3	10.0	11.2	12.2	13.7	15.0	16.7
110	3.4	4.0	5.3	6.1	7.7	8.7	10.0	11.2	12.3	13.8	14.9	16.6	18.4	20.5
125	3.8	4.4	6.0	6.8	8.8	9.9	11.4	12.8	13.9	15.5	16.9	18.8	20.9	23.2
140	4.3	5.0	6.7	7.8	9.8	11.0	12.8	14.3	15.6	17.4	19.0	21.1	23.4	26.0
160	4.9	5.6	7.7	8.7	11.2	12.6	14.6	16.3	17.8	19.8	21.7	24.1	26.7	29.6
180	5.5	6.3	8.6	9.7	12.6	14.1	16.4	18.3	20.0	22.2	24.4	27.1	30.0	33.2
200	6.1	7.0	9.6	10.8	14.0	15.6	18.2	20.3	22.3	24.8	27.1	30.1	33.4	37.0
225	6.9	7.8	10.8	12.1	15.7	17.5	20.5	22.8	25.0	27.7	30.5	33.8	37.5	41.5
250	7.6	8.6	12.0	13.4	17.5	19.5	22.8	25.3	27.8	30.8	33.8	37.4	41.7	46.1
280	8.5	9.6	13.4	15.0	19.6	21.8	25.5	28.3	31.2	34.6	37.9	41.9	46.7	51.6
315	9.6	10.8	15.0	16.7	22.0	24.4	28.7	31.8	35.0	38.7	42.6	47.1	52.5	58.0
355	10.8	12.1	17.0	18.9	24.8	27.9	32.3	35.8	39.5	43.7	48.0	53.0	59.2	65.4
400	12.2	14.3	19.1	22.2	28.0	32.4	36.4	42.1	44.5	51.4	54.1	62.6	-	-

Wall thickness of Pipes (PE-80) for pressure ratings of IS:4984-1995 with latest amendments.

DN	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
20	-	-	-	-	-	-	-	-	-	-	2.3	2.8	2.8	3.3
25	-	-	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.5	4.1
32	-	-	-	-	-	-	2.4	2.9	3.0	3.5	3.6	4.2	4.5	5.2
40	-	-	-	-	2.3	2.8	3.0	3.5	3.7	4.3	4.5	5.2	5.6	6.4
50	-	-	2.3	2.8	2.9	3.4	3.8	4.4	4.6	5.3	5.6	6.4	6.9	7.8
63	-	-	2.5	3.0	3.6	4.2	4.7	5.4	5.8	6.6	7.0	7.9	8.7	9.8
75	-	-	2.9	3.4	4.3	5.0	5.6	6.4	6.9	7.8	8.4	9.5	10.4	11.7
90	2.3	2.8	3.5	4.1	5.1	5.9	6.7	7.6	8.2	9.3	10.0	11.2	12.5	14.0
110	2.7	3.2	4.3	5.0	6.3	7.2	8.2	9.3	10.0	11.2	12.3	13.8	15.2	17.0
125	3.1	3.7	4.9	5.6	7.1	8.1	9.3	10.5	11.4	12.8	13.9	15.5	17.3	19.3
140	3.5	4.1	5.4	6.2	8.0	9.0	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160	4.0	4.6	6.2	7.1	9.1	10.3	11.9	13.3	14.6	16.3	17.8	19.8	22.1	24.6
180	4.4	5.1	7.0	7.9	10.2	11.5	13.4	15.0	16.4	18.3	20.0	22.2	24.9	27.6
200	4.9	5.6	7.7	8.7	11.4	12.8	14.9	16.6	18.2	20.3	22.3	24.8	27.6	30.6
225	5.5	6.3	8.7	9.8	12.8	14.3	16.7	18.6	20.5	22.8	25.0	27.7	31.1	34.5
250	6.1	7.0	9.7	10.9	14.2	15.9	18.6	20.7	22.8	25.3	27.8	30.8	34.5	38.2
280	6.9	7.8	10.8	12.1	15.9	17.7	20.8	23.1	25.5	28.3	31.2	34.6	38.7	42.8
315	7.7	8.7	12.2	13.7	17.9	19.9	23.4	26.0	28.7	31.8	35.0	38.7	43.5	48.1
355	8.7	9.8	13.7	15.3	20.1	22.4	26.3	29.2	32.3	35.8	39.5	43.7	49.0	54.1
400	9.8	11.5	15.4	18.0	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7

Wall thickness of Pipes (PE-100) for pressure ratings of IS:4984-1995 with latest amendments.

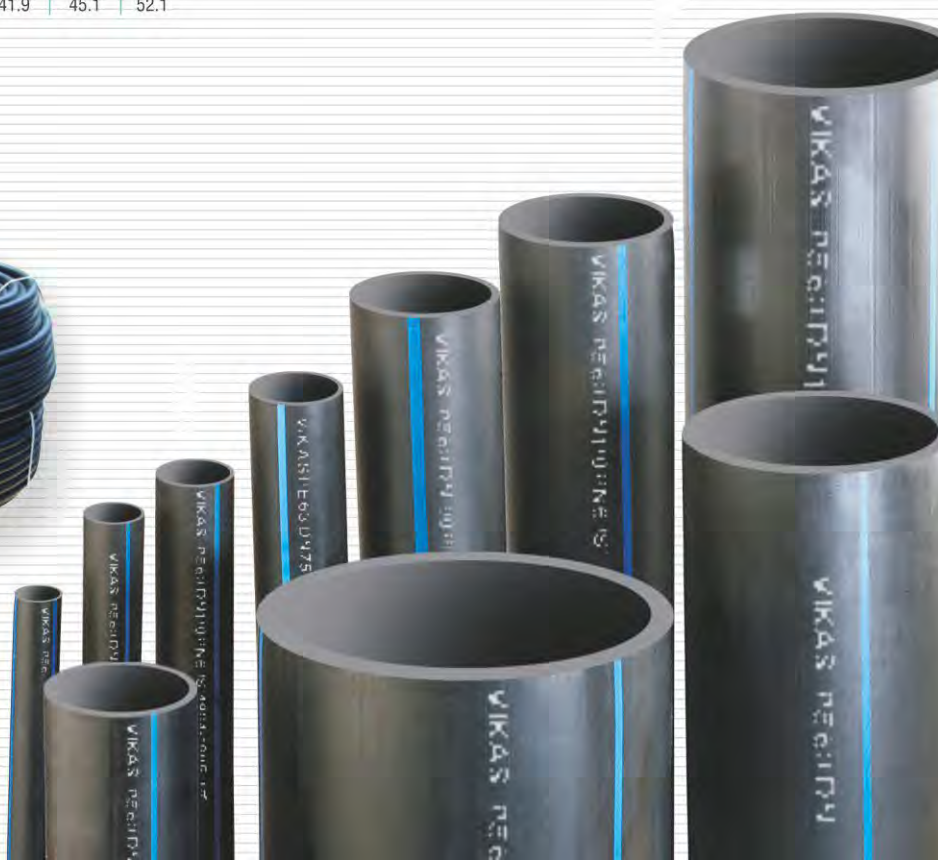
Dia DN	PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
20	-	-	-	-	-	-	-	-	2.3	2.8
25	-	-	-	-	-	-	2.3	2.8	2.9	3.4
32	-	-	-	-	2.4	2.9	2.9	3.4	3.7	4.3
40	-	-	2.4	2.9	3.0	3.5	3.7	4.3	4.6	5.3
50	2.3	2.8	3.0	3.5	3.7	4.3	4.6	5.3	5.7	6.5
63	2.9	3.4	3.8	4.4	4.7	5.4	5.7	6.5	7.1	8.8
75	3.5	4.1	4.5	5.2	5.6	6.4	6.8	7.7	8.5	9.6
90	4.1	4.8	5.4	6.2	6.7	7.6	8.2	9.3	10.2	11.5
110	5.0	5.7	6.6	7.5	8.1	9.2	10.0	11.2	12.4	13.9
125	5.7	6.5	7.5	8.5	9.2	10.4	11.3	12.7	14.1	15.8
140	6.4	7.3	8.4	9.5	10.3	11.6	12.7	14.2	15.8	17.6
160	7.3	8.3	9.6	10.8	11.8	13.2	14.5	16.2	18.1	20.2
180	8.2	9.3	10.8	12.1	13.3	14.9	16.3	18.2	20.3	22.6
200	9.1	10.3	12.0	13.4	14.8	16.5	18.1	20.2	22.6	25.8
225	10.3	11.6	13.5	15.1	16.6	18.5	20.4	22.7	25.4	28.2
250	11.4	12.8	15.0	16.7	18.4	20.5	22.6	25.1	28.2	31.3
280	12.8	14.3	16.8	18.7	20.6	22.9	25.3	28.1	31.6	35.0
315	14.4	16.1	18.9	21.0	23.2	25.8	28.5	31.6	35.5	39.3
355	16.2	18.1	21.2	23.6	26.2	29.1	32.1	35.6	40.0	42.2
400	18.2	21.2	23.9	27.7	29.5	34.2	36.2	41.9	45.1	52.1

Properties

M.F.I (190°C, 5kg load)
Specified base density
Material Grade
Carbon Black
Reversion
Hydraulic Characteristics

Value

0.20 to 1.1gm/10 mins
940 to 958 kg/mtr³
PE-63, PE-80, PE-100
(2.5 ± 0.5%)
≤ 3%
No sign of localized swelling,
leakage or weeping
(at 80°C for 165 & 48 hrs.)



HDPE Pipes For Sewerage

IS:14333-1996

CONSTRUCTION: Tijaria/Vikas 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:

Tijaria / Vikas HDPE Pipes available in wide range DN 63 mm to DN 500 mm with pressure rating PN-2.5 to PN-16 respectively in all grade i.e. PE-63, PE-80 & PE-100 in the length of 6 meters.

APPLICATION:

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

DIMENSION:

As Per IS: 14333:1996 with latest amendments.



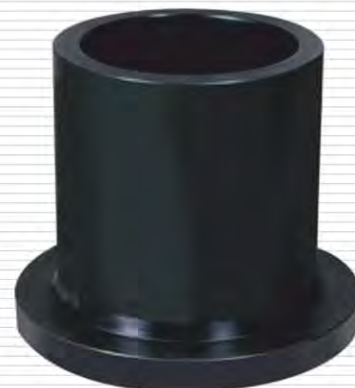
Wall Thickness of Pipes (PE-63) for pressure ratings of IS:14333 - 1996 With latest amendments.

Nominal OD mm	PN -2.5		PN -4		PN -6		PN -8		PN -10		PN -12.5		PN -16	
	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.
63	-	-	4.0	4.6	5.8	6.6	7.5	8.5	9.0	10.1	10.9	12.2	13.3	14.9
75	3.0	3.5	4.7	5.4	6.9	7.8	8.9	10.0	10.8	12.1	13.0	14.5	15.8	17.6
90	3.6	4.2	5.7	6.5	8.2	9.3	10.6	11.9	12.9	14.4	15.6	17.4	19.0	21.1
110	4.4	5.1	6.9	7.8	10.0	11.2	13.0	14.5	15.8	17.6	19.0	21.1	23.2	25.8
125	5.0	5.7	7.9	8.9	11.4	12.8	14.8	16.5	17.9	19.9	21.6	24.0	26.4	29.3
140	5.6	6.4	8.8	9.9	12.8	14.3	16.5	18.4	20.0	22.2	24.2	26.9	29.5	32.7
160	6.4	7.3	10.0	11.2	14.6	16.3	18.9	21.0	22.9	25.4	27.6	30.6	33.7	37.3
180	7.2	8.2	11.3	12.7	16.4	18.3	21.2	23.6	25.8	28.6	31.1	34.5	37.9	41.9
200	8.0	9.0	12.5	14.0	18.2	20.3	23.6	26.2	28.6	31.7	34.5	38.2	42.2	46.7
225	9.0	10.1	14.1	15.8	20.5	22.8	26.5	29.4	32.2	35.7	38.8	42.9	47.4	52.4
250	10.0	11.2	15.7	17.5	22.8	25.3	29.5	32.7	35.8	39.6	43.2	47.8	52.7	58.2
280	11.2	12.6	17.5	19.5	25.5	28.3	33.0	36.5	40.0	44.2	48.3	53.4	-	-
315	12.6	14.1	19.7	21.9	28.7	31.8	37.1	41.1	45.0	49.7	54.4	60.1	-	-
355	14.2	15.9	22.2	24.7	32.3	35.8	41.8	46.2	50.8	56.1	-	-	-	-
400	16.0	18.6	25.0	29.0	36.4	42.1	47.1	54.4	57.2	66.0	-	-	-	-



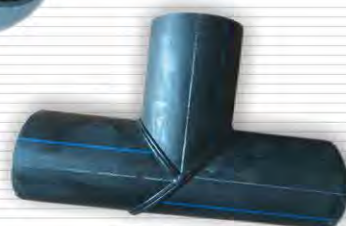
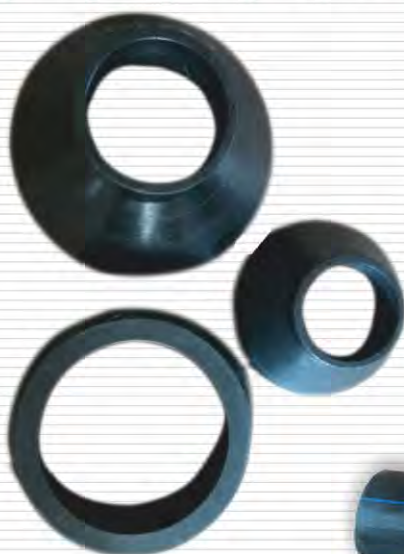
Wall Thickness of Pipes (PE-80) for pressure ratings of IS:14333 - 1996 With latest amendments.

Nominal OD mm	PN -2.5		PN -4		PN -6		PN -8		PN -10		PN -12.5		PN -16	
	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.	Mini.	Maxi.
63	-	-	3.0	3.5	4.4	5.1	5.8	6.6	7.0	7.9	8.6	9.7	10.5	11.8
75	2.3	2.8	3.6	4.2	5.3	6.1	6.9	7.8	8.4	9.5	10.2	11.5	12.5	14.0
90	2.8	3.3	4.3	5.0	6.3	7.2	8.2	9.3	10.0	11.0	12.2	13.7	15.0	16.7
110	3.4	4.0	5.3	6.1	7.7	8.7	10.0	11.2	12.3	13.8	14.9	16.6	18.4	20.5
125	3.8	4.4	6.0	6.8	8.8	9.9	11.4	12.8	13.9	15.5	16.9	18.8	20.9	23.2
140	4.3	5.0	6.7	7.6	9.8	11.0	12.8	14.3	15.6	17.4	19.0	21.1	23.4	26.0
160	4.9	5.6	7.7	8.7	11.2	12.6	14.6	16.3	17.8	19.8	21.7	24.1	26.7	29.6
180	5.5	6.3	8.6	9.7	12.6	14.1	16.4	18.3	20.0	22.2	24.4	27.1	30.0	33.2
200	6.1	7.0	9.6	10.8	14.0	15.6	18.2	20.3	22.3	24.8	27.1	30.1	33.4	37.0
225	6.9	7.8	10.8	12.1	15.7	17.5	20.5	22.8	25.0	27.7	30.5	33.8	37.5	41.5
250	7.6	8.6	12.0	13.4	17.5	19.5	22.8	25.3	27.8	30.8	33.8	37.4	41.7	46.1
280	8.5	9.6	13.4	15.0	19.6	21.8	25.5	28.3	31.2	34.6	37.9	41.9	46.7	51.6
315	9.6	10.8	15.0	16.7	22.0	24.4	28.7	31.8	35.0	38.7	42.6	47.1	52.5	58.0
355	10.8	12.1	17.0	18.9	24.8	27.5	32.3	35.8	39.5	43.7	48.0	53.0	59.2	65.4
400	12.2	14.3	19.1	22.2	28.0	32.4	36.4	42.1	44.5	51.4	54.1	62.5	-	-



Wall Thickness of Pipes (PE-100) for pressure ratings of IS:14333 - 1996 With latest amendments.

Dia DN	PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
63	3.6	4.2	4.7	5.4	5.8	6.6	7.0	7.9	8.7	9.8
75	4.3	5.0	5.6	6.4	6.9	7.8	8.4	9.5	10.4	11.7
90	5.1	5.9	6.7	7.6	8.2	9.3	10.0	11.2	12.5	14.0
110	6.3	7.2	8.2	9.3	10.0	11.2	12.3	13.8	15.2	17.0
125	7.1	8.1	9.3	10.5	11.4	12.8	13.9	15.5	17.3	19.3
140	8.0	9.0	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160	9.1	10.3	11.9	13.3	14.6	16.3	17.8	19.8	22.1	24.6
180	10.2	11.5	13.4	15.0	16.4	18.3	20.0	22.2	24.9	27.6
200	11.4	12.8	14.9	16.6	18.2	20.3	22.3	24.8	27.6	30.6
225	12.8	14.3	16.7	18.6	20.5	22.8	25.0	27.7	31.1	34.5
250	14.2	15.9	18.6	20.7	22.8	25.3	27.8	30.8	34.5	38.2
280	15.9	17.7	20.8	23.1	25.2	28.3	31.2	34.6	38.7	42.8
315	17.9	19.9	23.4	26.0	28.7	31.8	35.0	38.7	43.5	48.1
355	20.1	22.4	26.3	29.2	32.3	35.8	39.5	43.7	49.0	54.1
400	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7



RECOMMENDATIONS:

Depth of the bore	Pressure Class
Up to 55 Mtrs	4.0 kgf/cm ²
Up to 90 Mtrs	6.0 kgf/cm ²
Up to 140 Mtrs	10.0 kgf/cm ²
Up to 170 Mtrs	12.5 kgf/cm ²



SWR Pipes & Fittings

Unplasticized Polyvinyl Chloride (uPVC) Pipes For Soil & Waste Discharge - IS:13592-2013

CONSTRUCTION:

Tijaria / Vikas SWR Pipes & fittings are manufactured by compounding uPVC resin along with chemicals such as heat stabilizers, processing aids, lubricants, benzotriazole, phosphite based U.V stabilizers, pigments and carbon black UV stabilizers which noticeably improves the light stability of uPVC, prevents yellowing, imbrittlement and loss of mechanical strength conforming to IS: 13592-2013 with latest amendments.

APPLICATION:

Unplasticized polyvinyl chloride (uPVC) pipes for soil and waste discharge system for inside and outside building including ventilation and rain water system.

Note: These pipes can also be used for rainwater harvesting systems.

i) Type 'A' :- For the use in ventilation pipe work and rainwater application with grooving socket for size designation DN 40 to 160 mm

ii) Type 'B' :- For the use in soil and waste discharge system with grooving socket for size designation DN 40 to 160 mm

PRODUCT RANGE:

Selfit: These pipes have bell type socket at one end. Available in 40 to 160 mm sizes.

Ring-O-Socket: These pipes have ring type socket at one end. Available in 40mm to 160mm sizes.

ADVANTAGES:

Easy installation: Due to light in weight these pipes are easy to install and less time consuming than cast iron or cement pipes.

High Chemical Resistance: Highly resistant to acid, alkalies, cement, lime, oils and domestic effluents.

Free Flow: Due to it's smooth inside surface any liquid flows very freely.

Durable: These are strong and durable because of weather and sunlight resistant. These are also unaffected by termite, bacteria and fungus.

PROPERTIES:

Hozen williams coefficient	150 remains constant.
Maximum bending stress	21 kgf/cm ²
Durometer hardness-	80 (as per ASTM - D - 1785)
Water adsorption in 24 hours	0.01%
Flammability	will not support combustion self extinguishing
Specific gravity	1.4 to 1.43
Tensile strength	450 - 560 kgf/cm ²
Compressive	600-700 kgf/cm ²
Flexural strength	650 - 700 kgf/cm ²
Vicat softening point	> 80°

DIMENSIONS OF SWR PIPES: (All sizes in mm)

Nominal Outside Diameter	Mean Outside Diameter		Wall thickness			
			TYPE A		TYPE B	
Max	Min	Max	Min	Max	Min	Max
40	40.0	40.3	1.8	2.2	3.2	3.8
50	50.0	50.3	1.8	2.2	3.2	3.8
63	63.0	63.3	1.8	2.2	3.2	3.8
75	75.0	75.3	1.8	2.2	3.2	3.8
90	90.0	90.3	1.9	2.3	3.2	3.8
110	110.0	110.4	2.2	2.7	3.2	3.8
125	125.0	125.4	2.5	3.0	3.2	3.8
140	140.0	140.5	2.9	3.4	3.6	4.2
160	160.0	160.5	3.2	3.8	4.0	4.6

COMPARISON OF uPVC SWR PIPES WITH CAST IRON AND ASBESTOS CEMENT PIPES

PROPERTIES	UPVC SWR PIPES	CAST IRON PIPES	ASBESTOS CEMENT PIPES
Impact Strength	Good	Good	No Impact Strength
Durability	50 years	20 years	No Guaranty
Inertness to chemicals	Excellent Chemical Resistance	Gets Oxidized	Good Resistance
Fungus Growth	Negative	Positive	Positive
Installation Labor	Less Labor	More Labor	More Labor
Maintenance	Easy to clean and inspect due to threaded door cap	Difficult to open caps	Difficult to open caps
Non Conductivity	Non Conductive	Not Safe	Not Safe
Aesthetic	Aesthetically far superior	Not Attractive	Not Attractive



Vent Cowl



P-Trap



Bend45°/Shoe Bend



Coupler



Door Bend 87.5° wsd



87.5° Plain Bend



Door Tee



Plain Tee



Pipe Clip



Reducer



Nahani Trap



Pipe

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 rings 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 of contamination offers following advantages:

- 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.

ADVANTAGES OF RIGID PVC PIPES:

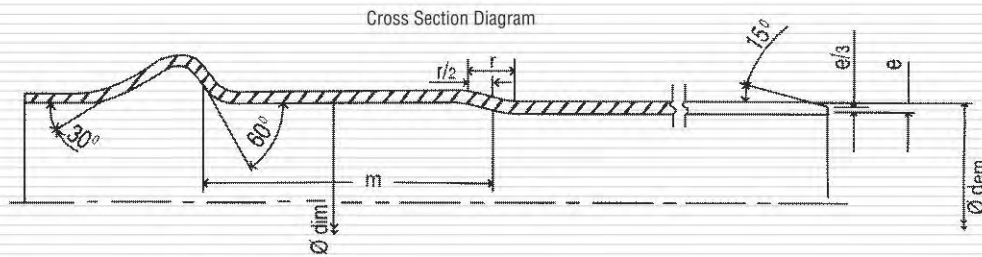
- These pipes are most ideal for the use for variety applications like Agriculture, Irrigation, Water Supply, Industrial Process Lines and Swimming Pools etc.
- Being immune to chemical, electrolytic and galvanic action, these pipes are free from corrosion.
- Pipes offer excellent resistance to acids, oxidizing agents, alkalis, oils and domestic effluents.
- Pipes have mirror smooth inside surface and hence better flow characteristics in comparison to A.C., C.I. and G.I. Pipes.
- Corrosion resistance property of the PVC pipes eliminates the need for painting or coating.
- As these pipes are free from weakness caused by scale formation, rusting, weathering and chemical action, they last for a life time.
- Apart from superiority over conventional pipes, PVC pipes are light in weight and hence they offer total economy in handling, transportation and installation.

DIMENSIONS: (As per IS: 4985-2000) All sizes in mm

Nominal outside Dia DN	Mean Outside Dia dem		Outside Diameter at any point de		Wall thickness																Socket inner Diameter dim		Minimum depth of engagement m
					Class-1 0.25 MPa (2.5 kgf/cm ²)		Class-2 0.40 MPa (4.0 kgf/cm ²)		Class-3 0.60 MPa (6.0 kgf/cm ²)		Class-4 0.80 MPa (8.0 kgf/cm ²)		Class-5 1.00 MPa (10.0 kgf/cm ²)		Class-6 1.25 MPa (12.5 kgf/cm ²)								
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max					
63	63.0	63.3	62.2	63.8	-	-	1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1	4.3	5.0	63.1	63.3	64				
75	75.0	75.3	74.1	75.9	-	-	1.8	2.2	2.6	3.1	3.4	4.0	4.2	4.9	5.1	5.9	75.1	75.3	67				
90	90.0	90.3	88.9	91.1	1.3	1.7	2.1	2.6	3.1	3.7	4.0	4.6	5.0	5.7	6.1	7.1	90.1	90.3	70				
110	110.0	110.4	108.6	111.4	1.6	2.0	2.5	3.0	3.7	4.3	4.9	5.6	6.1	7.1	7.5	8.7	110.1	110.4	75				
125	125.0	125.4	123.5	126.5	1.8	2.2	2.9	3.4	4.3	5.0	5.6	6.4	6.9	8.0	8.5	9.8	125.1	125.4	78				
140	140.0	140.5	138.3	141.7	2.0	2.4	3.2	3.8	4.8	5.5	6.3	7.3	7.7	8.9	9.5	11.0	140.2	140.5	81				
160	160.0	160.5	158.0	162.0	2.3	2.8	3.7	4.3	5.4	6.2	7.2	8.3	8.8	10.2	10.9	12.6	160.2	160.5	86				
180	180.0	180.6	177.8	182.2	2.6	3.1	4.2	4.9	6.1	7.1	8.0	9.2	9.9	11.4	12.2	14.1	180.2	180.5	90				
200	200.0	200.6	197.6	202.4	2.9	3.4	4.6	5.3	6.8	7.9	8.9	10.3	11.0	12.7	13.6	15.7	200.3	200.6	94				
225	225.0	225.7	222.3	227.7	3.3	3.9	5.2	6.0	7.6	8.8	10.0	11.5	12.4	14.3	15.3	17.6	225.3	225.7	100				
250	250.0	250.8	247.0	253.0	3.6	4.2	5.7	6.5	8.5	9.8	11.2	12.9	13.8	15.9	17.0	19.6	250.4	250.8	105				
280	280.0	280.9	276.6	283.4	4.1	4.8	6.4	7.4	9.5	11.0	12.5	14.4	15.4	17.8	19.0	21.9	280.4	280.9	112				
315	315.0	316.0	311.2	318.8	4.6	5.3	7.2	8.3	10.7	12.4	14.0	16.1	17.3	19.9	21.4	24.7	315.4	316.0	118				
355	355.0	356.1	350.7	359.3	5.1	5.9	8.1	9.4	12.0	13.8	15.8	18.2	19.6	22.6	24.1	27.8	355.4	356.0	124				
400	400.0	401.2	395.2	404.8	5.8	6.7	9.1	10.5	13.5	15.6	17.8	20.5	22.0	25.3	27.2	31.3	400.4	401.0	130				

1. The table is based on metric series of pipe dimensions given in ISO 161/1 in respect of pipe dimensions and ISO DIS 4422.

2. The wall thickness of pipes are based on a safe working stress of 8.6 MPa at 27°C and the working pressure gets reduced at sustained higher temperatures. Occasional rise in temperature as in summer season with concurrent corresponding reduction in temperature during nights has no deleterious effect on the life working pressure of the pipes considering the total life of pipes.



m = Minimum depth of engagement
 de = Outer diameter at any point, and
 di = Inner diameter of socket measured at mid-point of socket length 'm'

Step 1



Step 3



Step 5

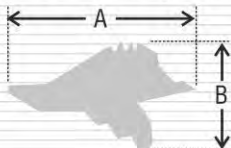


INSTALLATION PROCEDURE:

1. Spigot end is provided with 15° chamfer for full length pipe. If cut lengths are to be used, then deburr the spigot end after cutting a site and provide 15° chamfer, using file.
2. Mark insertion depth on spigot.
3. Clean the socket and ensure that elastomeric sealing ring is properly installed in its groove without twist.
4. Apply lubricant on the spigot.
5. Slide the spigot into socket thus compressing the sealing lips. In case of large diameter of pipes, use pipe jack.

Note: Use silicon or poly glycol based lubricants only. Do not use vaseline or mineral oil.

Cross section of
Elastomeric Sealing Rings



Material-EPDM
 As per IS : 5382 - 1985



MDPE Pipes

ISO:4427-2:2007, ISO:4437-2007 & IS:14885-2001

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

MATERIAL:

The raw material used is Medium Density Polyethylene (MDPE). Tijaria manufactures pipes in grades PE-80 & PE-100 for water gas applications in sizes 20 mm to 250 mm (Outer Diameter) in all pressure ratings. Traditionally these pipes are identified by its color for different uses like blue for water, orange for petrol, and yellow for gas line.

SPECIFICATIONS:

Tijaria manufactures MDPE pipes which confirms to National and International standards as ISO:4437, ISO:4427, IS:14885-2001, BS-7281, DIN-8074/75. Tijaria / Vikas pipes can also be tailor made to meet the specific requirement of individual gas authorities or customers.

SALIENT FEATURES:

- Flexible : Easy to Handle
- Corrosion Resistant : Tough and highly reliable in aggressive soils.
- 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 loading and marshy ground.
- Homogenous : Leakage free joints.
- Installation : Low Installation cost.

DIMENSION:

Nominal outer Dia.	Nominal Wall Thickness (All sizes in mm)			
mm	SDR 17.6	SDR 13.6	SDR 11.0	SDR 9.0
16	2.3	2.3	3.0	3.0
20	2.3	2.3	3.0	3.0
25	2.3	2.3	3.0	3.0
32	2.3	2.3	3.0	3.6
40	2.3	3.0	3.7	4.5
50	2.9	3.7	4.6	5.6
63	3.6	4.7	5.8	7.1
75	4.3	5.5	6.8	8.4
90	5.2	6.6	8.2	10.1
110	6.3	8.1	10.0	12.3
125	7.1	9.2	11.4	14.0
140	8.0	10.3	12.7	15.7
160	9.1	11.8	14.6	17.9
180	10.3	13.3	16.4	20.1
200	11.4	14.7	18.2	22.4
225	12.8	16.6	20.5	25.1
250	14.2	18.4	22.7	27.9



PHYSICAL & MECHANICAL PROPERTIES OF MDPE PIPES:

Characteristics	Units	Requirements	Test Parameters	Test Methods
Conventional Density	kg/m ³	>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

PVC Electrical Conduit Pipes

IS:9537(Part-3) -1983

MATERIAL: It is made of Polyvinyl Chloride. The additives used in manufacturing of this product having a quality of shock proof. We adopt high quality PVC Resin & imported processing aids with scientific formulas to produce pipes & fittings. Tijaria/Vikas PVC Electrical Conduit pipe conforms to IS : 9537 (Part-3) -1983 with latest amendments.

SALIENT FEATURES:

- **For Commercial & Industrial Uses:** Tijaria / Vikas PVC electrical conduit pipe has proven durable & effective for years of maintenance free performance in under- ground, encased & exposed application in accordance with the National Electrical Code.
- **Corrosion Proof:** Resistance to most chemicals, PVC is not affected by any corrosion, cement, lime, soils and salts.
- **Non Magnetic & Non Galvanic:** Merits of Tijaria / Vikas PVC electrical conduits assure good insulation & no power loss or conductor heading.
- **Self Extinguishing:** PVC merits make fire resistant qualities.
- **Impact Resistant:** Tijaria / Vikas PVC electrical conduit is tough, durable & has high tensile strength yet is easy to handle & install right on the job site.
- **Light Weight:** Tijaria / Vikas PVC electrical conduit pipe is very light weight, high strength, long life span, low cost, lower cost of installation & lower transportation cost.



Micro / Drip Irrigation System

IS:13487-1992, IS:13488-2008 & IS:12786-1989

Tijaria Polypipes Ltd. introduces inline emitting pipe system for better irrigation of plants at very low cost and with scarce of water. This product confirms to Indian Standards as per IS:13488-2008 & IS:12786-1989 This is an integral pipe system (in-built) in which the emitters are inserted in the laterals during the extrusion process at preset distances.

SALIENT FEATURES:

- High clog resistant emitter designed with a unique wide turbulent flow path.
- Large surface inlet screen orifice.
- Two orifice outlets placed 180° apart at each dripper end.
- The additional outlet reduces the suction hazard from sand particles when the laterals are drained.
- Easy to roll and unroll during inter cultivating operations, thus reduces chances of mechanical damage without losing drippers.
- Uniform emission rate along the lateral.
- Available in wide range of emitter spacing from 20 to 150 cm as per customer's need.



IS:12786-1989

