ashirvad
by aliaxis

aliaxis

ashirvad SWASTH®

HDPE Pipes for Water Extraction, Transmission & Distribution



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WE ARE ASHIRVAD BY ALIAXIS

Ashirvad, by aliaxis, part of the global Aliaxis Group, is one of India's foremost names in plumbing, water management and fluid-handling solutions. Over the last 27 years, the company has built an extensive and diverse product portfolio and has emerged as a trusted leader in fluid management. Ashirvad manufactures more than 6000 product SKUs across residential, agricultural, industrial and infrastructure segments. The brand caters to a wide ecosystem of plumbers, plumbing contractors, retailers, distributors, MEP consultants, homeowners, the farming community and the broader infrastructure sector. Its nationwide presence is strengthened by 13 distribution centres, a network of over 38,000 dealers and 7 fully operational state-of-the-art manufacturing units assuring consistent product quality across the country.

What began in 1998 as a uPVC column (water extraction) pipe manufacturing facility in Bengaluru has grown into one of India's most respected water solutions companies. Ashirvad has expanded into exports, earned national recognition for entrepreneurship and introduced new facilities and product lines that steadily broadened its impact. Today, Ashirvad offers solutions that span CPVC and uPVC plumbing systems, SWR drainage, water storage, adhesives, fire protection systems, and several innovations designed for modern infrastructure.

As a strategic part of the Aliaxis Group, which operates in more than 40 countries with a workforce of over 15,000 people, Ashirvad benefits from shared R&D, advanced engineering capabilities and a global perspective on water sustainability. This allows the company to deliver solutions that are technologically advanced while being deeply aligned with local requirements and usage conditions. The strength of this global–local synergy has positioned Ashirvad as a reliable partner for millions of consumers across India and international markets.

A strong manufacturing and distribution foundation supports Ashirvad's operations. The company has built systems that ensure accessibility, consistency and trust across its production units and extensive dealer and channel network. Ashirvad serves customers in every part of India through thousands of retail connections, a wide distributor base, and a large plumber community. All the operations are supported by multiple warehouses and logistics hubs that guarantee timely and efficient product supply.

Innovation has always been central to Ashirvad's evolution. Its R&D capabilities span India, France, and Canada and are anchored by a NABL-accredited testing facility in Bengaluru. The company continues to push the boundaries of material science, product performance and user-centric design with a strong team of engineers, product specialists and researchers. Its portfolio includes innovations such as FlowPro+ CPVC systems, advanced SWR technologies, siphonic roof drainage solutions and concealed cisterns. These developments have earned Ashirvad more than 75 patents and numerous industry awards.

The culture of the company is rooted in the Aliaxis values of daring to innovate while caring for people and the environment. This also helps in delivering on commitments with responsibility and precision. The values guide every aspect of Ashirvad's operations right from manufacturing and safety to customer engagement and service delivery.

Beyond business, Ashirvad invests deeply in social impact. Its sustainability initiatives span river rejuvenation, afforestation and large-scale water conservation efforts that help restore natural ecosystems. The company's Plumbing Schools in Bengaluru and Bhiwadi have trained more than 1200 young professionals, contributing to skill development in an essential trade. Mobile healthcare initiatives and women empowerment programs further demonstrate Ashirvad's commitment to building stronger and healthier communities.

As the company looks toward the future, Ashirvad by aliaxis remains driven by its core purpose, which is to build a water-secure India through solutions that are innovative and sustainable. With strong global support and deep local presence, Ashirvad is committed to transforming how water flows through homes, industries and communities across the country.



In 2007, Ashirvad won the National Award for **"OUTSTANDING ENTREPRENEURSHIP IN MEDIUM ENTERPRISES"**
The award was presented by the Prime Minister of India.



WCRC Leaders Summit - 2014
Ashirvad Pipes
"One Of The 100 Fastest Growing Marketing Brands In Asia"
(Evaluated and selected by KPMG)
The Global Audit Firm



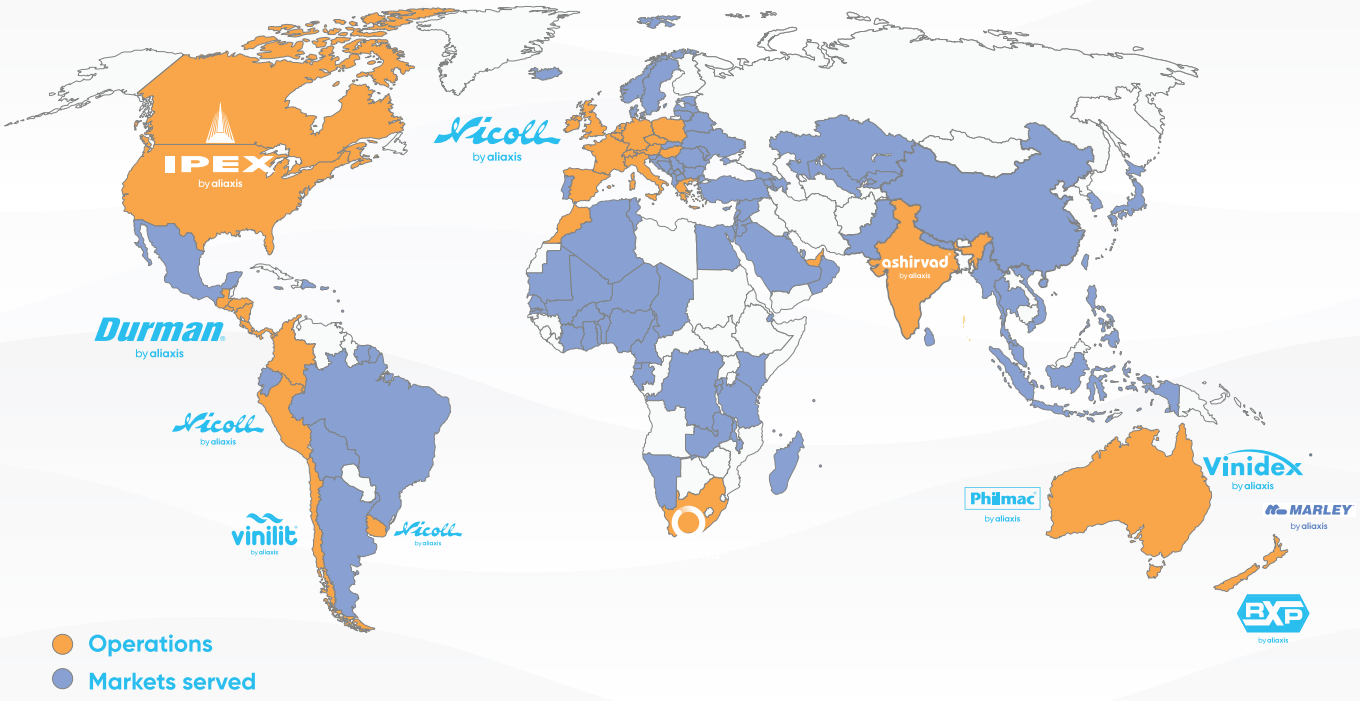
Construction Industry Database (CIDC) - 2015 Has been enlisted as an **Approved Vendor** for providing the following Services / Products
Manufacturing of
CPVC & uPVC Pipes & Fittings

WE ARE ALIAXIS

At Aliaxis, we are a global leader in designing innovative, reliable and sustainable solutions for fluid and energy management. Our pipe and fitting systems work seamlessly behind the scenes to provide peace of mind for our customers and end users. With operations in over 40 countries, we serve the most complex needs of the building, infrastructure, industrial, electrical and agriculture sectors. And at the heart of our operations, are the expertise of our 15,000+ employees — they are what drive us. Together, we make life flow."

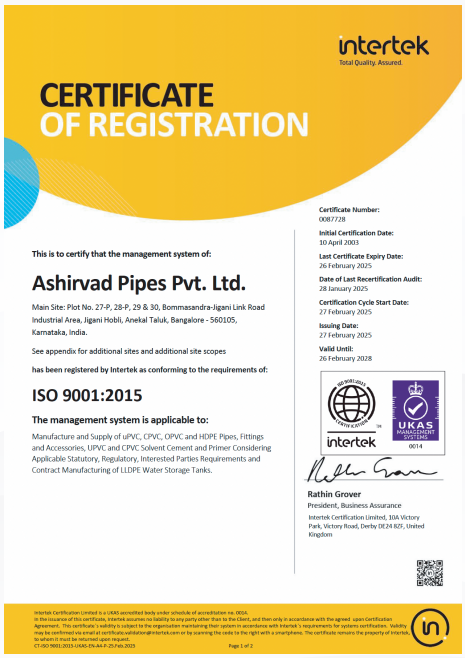
15000+ EMPLOYEES
40+ COUNTRIES
100+ MANUFACTURING & COMMERCIAL ENTITIES
3 RESEARCH FACALITIES

Aliaxis around the world



*Map is for informational purposes only. It does not represent actual scale.

CERTIFICATIONS



intertek
Total Quality. Assured.

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Ashirvad Pipes Pvt. Ltd.

Main Site: Plot No. 27-P, 28-P, 29 & 30, Bommasandra-Jigani Link Road Industrial Area, Jigani Hobli, Anekal Taluk, Bangalore - 560105, Karnataka, India.

See appendix for additional sites and additional site scopes

has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Manufacture and Supply of uPVC, CPVC, OPVC and HDPE Pipes, Fittings and Accessories, UPVC and CPVC Solvent Cement and Primer Considering Applicable Statutory, Regulatory, Interested Parties Requirements and Contract Manufacturing of LLDPE Water Storage Tanks.

Certificate Number: 0087728
Initial Certification Date: 10 April 2003
Last Certificate Expiry Date: 26 February 2025
Date of Last Recertification Audit: 28 January 2025
Certification Cycle Start Date: 27 February 2025
Issuing Date: 27 February 2025
Valid Until: 26 February 2028

UKAS MANAGEMENT SYSTEMS 0014

Rathin Grover
President, Business Assurance
Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom



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Certificate Number: 0087727
Initial Certification Date: 30 March 2016
Last Certificate Expiry Date: 26 February 2025
Date of Last Recertification Audit: 28 January 2025
Certification Cycle Start Date: 27 February 2025
Issuing Date: 27 February 2025
Valid Until: 26 February 2028

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has been registered by Intertek as conforming to the requirements of

ISO 45001:2018

OHSAS 18001:2007 certified from 20 July 2017 to 27 February 2019.

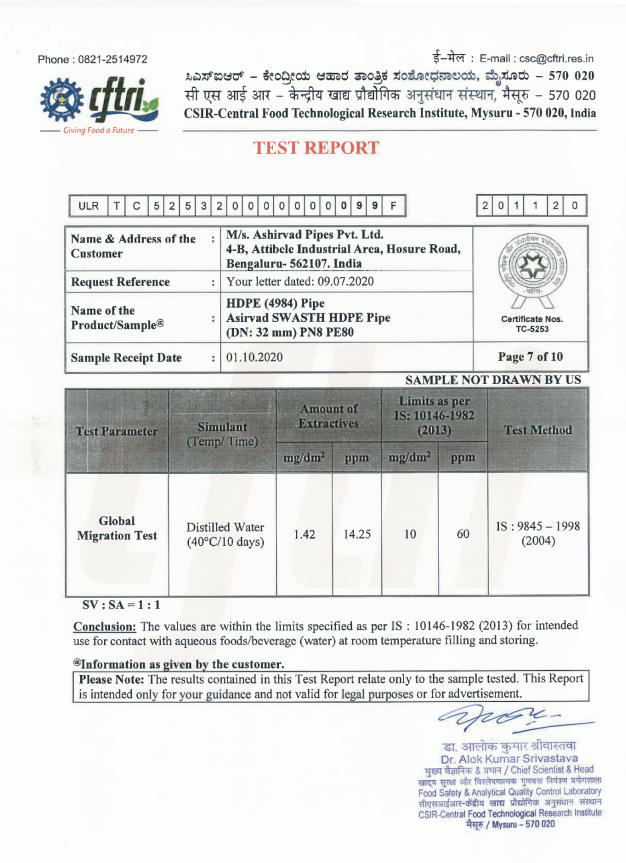
The management system is applicable to:

Manufacture and Supply of uPVC, CPVC, OPVC and HDPE Pipes, Fittings and Accessories, UPVC and CPVC Solvent Cement and Primer Considering Applicable Statutory, Regulatory, Interested Parties Requirements and Contract Manufacturing of LLDPE Water Storage Tanks.

Certificate Number: 0087730
Initial Certification Date: 20 July 2017
Last Certificate Expiry Date: 26 February 2025
Date of Last Recertification Audit: 28 January 2025
Certification Cycle Start Date: 27 February 2025
Issuing Date: 27 February 2025
Valid Until: 26 February 2028

UKAS MANAGEMENT SYSTEMS 0014

Rathin Grover
President, Business Assurance
Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom



Phone : 0821-2514972
ई-मेल : E-mail : csc@cftri.res.in
ಸಿಎಸ್‌ಐಆರ್ – ಕೇಂದ್ರೀಯ ಆಹಾರ ತಾಂತ್ರಿಕ ಸಂಶೋಧನಾಲಯ, ಮೈಸೂರು – 570 020
सी एस आई आर – केन्द्रीय खाद्य प्रौद्योगिक अनुसंधान संस्थान, मैसूरु – 570 020
CSIR-Central Food Technological Research Institute, Mysuru - 570 020, India
Giving Food a Future

TEST REPORT

ULR TC525320000000999F
201120

Name & Address of the Customer	:	M/s. Ashirvad Pipes Pvt. Ltd. 4-B, Attibele Industrial Area, Hosure Road, Bengaluru- 562107. India
Request Reference	:	Your letter dated: 09.07.2020
Name of the Product/Sample@	:	HDPE (4984) Pipe Asirvad SWASTH HDPE Pipe (DN: 32 mm) PN8 PE80
Sample Receipt Date	:	01.10.2020

Certificate Nos. TC-5253

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SAMPLE NOT DRAWN BY US

Test Parameter	Simulant (Temp/ Time)	Amount of Extractives		Limits as per IS: 10146-1982 (2013)		Test Method
		mg/dm²	ppm	mg/dm²	ppm	
Global Migration Test	Distilled Water (40°C/10 days)	1.42	14.25	10	60	IS : 9845 – 1998 (2004)

SV : SA = 1 : 1

Conclusion: The values are within the limits specified as per IS : 10146-1982 (2013) for intended use for contact with aqueous foods/beverage (water) at room temperature filling and storing.

@Information as given by the customer.

Please Note: The results contained in this Test Report relate only to the sample tested. This Report is intended only for your guidance and not valid for legal purposes or for advertisement.

डा. आलोक कुमार श्रीवास्तव
Dr. Alok Kumar Srivastava
मुख्य वैज्ञानिक & प्रभाग / Chief Scientist & Head
खाद्य सुरक्षा और विश्लेषणात्मक गुणवत्ता नियंत्रण प्रयोगशाला
Food Safety & Analytical Quality Control Laboratory
सीएसआईआर-केंद्रीय खाद्य प्रौद्योगिक अनुसंधान संस्थान
CSIR-Central Food Technological Research Institute
मैसूर / Mysuru - 570 020

10 ASSURANCES

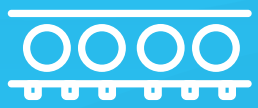
#01
STATE OF THE ART
MANUFACTURING FACILITIES



#02
ADVANCED MACHINERY
FOR SUPERIOR QUALITY



#03
ADVANCED MATERIAL
HANDLING SYSTEMS



#04
100% INCOMING RAW
MATERIAL INSPECTION



#05
HIGH DIMENSIONAL ACCURACY
TO MAINTAIN QUALITY OF
EACH PIECE, TO ENSURE
A DEFECT FREE SYSTEM



Ashirvad's stringent quality checks ensure premium products and maximum customer satisfaction

#06

STRINGENT QUALITY CHECKS AT EVERY LEVEL OF PRODUCTION



#07

100% FINISHED GOODS INSPECTION



#08

MULTIPLE QUALITY CHECKS IN PLACE FOR EVERY FITTING THAT LEAVES THE ASHIRVAD FACTORY



#09

EVERY BATCH OF PRODUCTS LAB TESTED



#10

REGULAR EXTERNAL LAB TESTING OF PRODUCTS IN INDIA



AGRICULTURE | **Ashirvad Swasth Flexi Column**

INFRASTRUCTURE | **Ashirvad Swasth HDPE Pipes**



Ashirvad SWASTH HDPE Pipes

Ashirvad by aliaxis introduces high quality superior grade HDPE (High Density Polyethylene) pipes, which are intended for water transmission, water distribution, sewage transmission, and lift irrigation. These pipes are manufactured from 100% virgin raw material as per BIS specifications IS-4984, IS 14333, & ISO 4427, available in raw material grades PE-63, PE 80 and PE 100 in various pressure rating classes.

Classification of Material		
PE GRADE	MRS (Min. Required Strength) of PE Resin at 20°C for 50 years life (MPa)	Design Stress at 20°C (MPa)
63	6.3	5
80	8.0	6.3
100	10.0	100

Hydraulic Characteristics of HDPE Pipes				
Test Temperature (°C)	Test Duration (Hours)	Induced Hoop Stress in MPa		
		PE 63	PE 80	PE 100
27	100	6.9	8.6	10.7
80	48	3.8	4.9	5.7
80	165	3.5	4.5	5.4
80	1000	3.2	4.0	5.0

Technical Specifications of HDPE Pipes as per IS 4984:2022, IS 14333: 2022, & ISO 4427:2019	
Pipe Diameter Range	16mm to 2000mm
Pressure Ratings (PN classes)	2kgf/cm^2 to 25kgf/cm^2
Standar Dimension Ration	SDR 41, SDR 33, SDR 26, SDR 21, SDR17, SDR 13.6, SDR11,SDR 9, SDR 7.4 & SDR 6
Material Grade	PE63, PE80, & PE100
Color	Black with Blue Strips
Working Temperature	-40°C to 45°C
Availability* (Diameter options vary by size)	Coils: 500m & 1000m. Lengths: 6m, 9m, & 12m.

Note: Sizes above 500mm will be made as per the order.

Mechanical and Physical Properties of HDPE Pipe		
Property	Value	Unit
Base Destiny	930-960	Kg/cm3
Melt Flow-rate at 190°C & 5 Kgf Load	0.2-1.1	g/10 min
Oxidation Induction Time at 200°c	≥ 20	min
Volatile Matter	≤ 350	mg/kg
Water Content	≤ 350	mg/kg
Anti-oxidant Content	Max 0.3	%
Longitudinal Reversion Test	≤ 3	%
Carbon Block Content	2-3	%
Carbon Block Dispersion	Satisfactory	–
Elongation at Break	≤ 350	%
Tensile Strength of Butt Fusion Joint	Ductile Failure	–
Dimentional Characteristics	As per IS 4984-2016	–
Slow Crack Growth at 80± °C Notched Test Specimen at Below Internal Test Pressure (MPa) PE63 (0.64), PE80 (0.8), PE100 (0.92)	≥ 500	Hrs.

Applications

Municipalities and Public Utilities



- Potable water supply
- House service connections
- Main water supply lines
- Waste-water treatment plants

Agriculture and Irrigation



- Borewell applications
- Drip, sprinkler, and gravity irrigation
- Main and distribution systems

Mining Industry



- Leach drainage systems
- Coal water separation lines
- Mine water removal networks
- Tailing disposal pipelines
- Slurry and sludge conveyance
- Mine dewatering solutions
- Dust control systems
- Sand backfilling operations

Ducting Applications



- Electrical cable conduit systems
- Telecom cable routing channels
- Fiber optic conduit lines
- Micro-conduit for home connections

Infrastructure



- Effluent management systems
- Stay cable pipes in cable-staybridges
- Water desalination facilities
- Drainage and culvert networks
- Power-plant piping solutions
- Hydropower infrastructure systems

Industrial



- Process and manufacturing solutions
- Fluid and waste management
- Construction and infrastructure support
- Material transport systems
- Building and construction
- Specialised industrial utilities

Gas and Air Applications



- Natural & LPG distribution networks
- Methane recovery and supply systems
- Chilled air transport lines
- Biogas transfer pipelines
- Inert gas handling systems

Key Features

- Manufactured from 100% Virgin Raw Material
- Outstanding Flexibility and Crush Resistance
- Superior Hydrostatic Strength
- Excellent Slow Crack Growth Resistance (SCGR) Properties
- Smooth Internal and External Surfaces Ensure Excellent Flow Characteristics
- Leak-free Fusion Welded Joints
- Anti-microbial and UV Resistant
- Light-weight and Easy-to-Install
- Excellent Chemical Resistance

Standards

Ashirvad Swasth HDPE pipes are manufactured conforming to standards below.

Indian Standard
IS 4984:2022
IS 14333: 2022

International Standard
ISO 4427: 2019

Quality Assurance

Ashirvad conducts following stringent quality checks at each stage of manufacturing to ensure only best quality product is delivered to the customer.

Dimensional Check
Verifies that pipe dimensions- including mean outside diameter, wall thickness, and ovality- meet IS 4984 tolerances ensure proper fit and performance.

Internal Pressure Creep Rupture Test
Evaluates the long term hydrostatic strength of HDPE pipes by maintaining constant internal pressure until failure, ensuring durability under service conditions.

Longitudinal Reversion
Evaluates dimensional stability by measuring pipe shrinkage after exposure to elevated temperature, thereby confirming proper extrusion and material behavior.

Carbon Black Content and Dispersion
Checks the quantity and uniform distribution of carbon black to ensure UV resistance and prevents premature degradation.

Melt Flow Rate (MFR)
Determines the flow characteristics of molten HDPE, verifying resin consistency and suitability for extrusion.

Oxidation Induction Time (OIT)
Measures thermal stability by identifying the time before oxidative degradation begins, indicating adequacy of antioxidant levels.

Overall Migration
Ensures that HDPE pipes used for potable water, do not leach harmful substances into the medium, confirming compliance with safety requirements.

Density
Confirms the material grade and structural characteristics of HDPE by measuring density, which influences strength and stiffness.

Tensile Strength
Determines the maximum tensile stress the pipe material can withstand, reflecting its mechanical robustness.

Elongation at Break
Assesses ductility by measuring how much the material can stretch before rupture, indicating resistance to brittle failure.

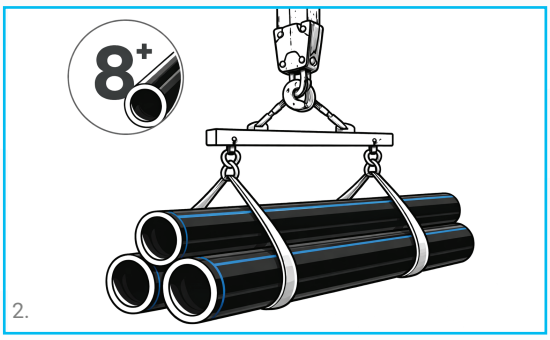
Slow Crack Growth Rate (SCG)
Evaluates long-term resistance to crack initiation and propagation under sustained loading, ensuring service life reliability.

Handling and Storage



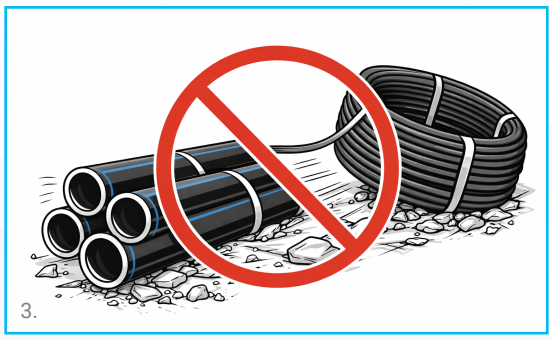
1.

Workers should wear personal and protective equipments, be aware of the potential hazards involved with a given task, along with the work environment, when working with HDPE pipes.



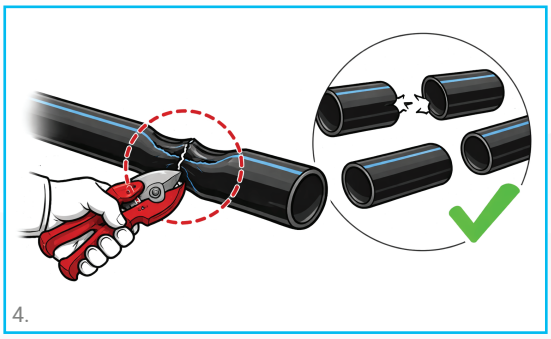
2.

The use of power equipment is suggested to lift and handle pipes greater than 8” in diameter.



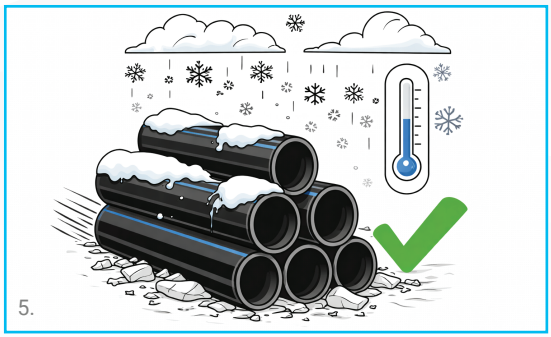
3.

Dragging of pipes or coils over rough ground or dropping them from height on sharp stones should be avoided.



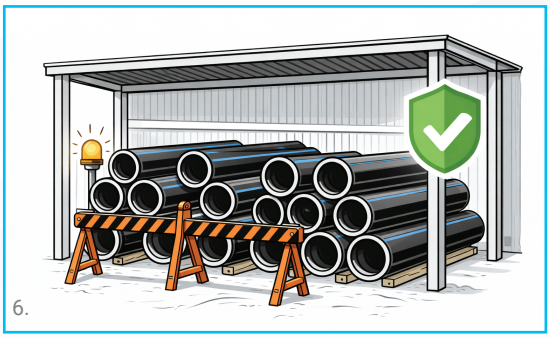
4.

If due to unsatisfactory storage or handling, a pipe is damaged or “kinked”, the damaged portion should be cut out completely.



5.

Low temperature does not act upon HDPE as much as other plastic materials, and there is no need for taking additional precautions during handling in cold weather.



6.

Against physical damage, the storage area should provide adequate protection to the components.



7.

It should be large enough to accommodate piping components as well as allow handling equipment to move about freely. Where adequate ground conditions do not exist or when a bed cannot be prepared, the pipe may be placed on planks.

Introducing FRIALEN NXT

New quality in safety fittings



With the lowest energy consumption and variable fusion voltage, FRIALEN NXT achieves unrivalled fusion quality within the shortest possible time

FRIALEN NXT UB
Electrofusion coupler



FRIALEN NXT MR
Electrofusion reducing coupler



FRIALEN NXT W45
Electrofusion 45° elbow



FRIALEN NXT T/TA
Electrofusion tee



FRIALEN NXT W90
Electrofusion 90° elbow

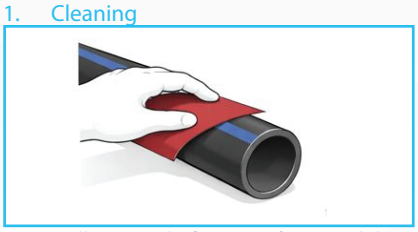


FRIALEN NXT MV
Electrofusion end cap

Butt Fusion Welding

Butt welding is used for Polyethylene pipe jointing. This is the most widely accepted method, and it is highly economical and simple. In this process, the preheated pipes and / or fittings are joined under controlled pressure and temperature conditions. Some of the fittings, e.g. bend and tee of large diameters are also fabricated by this process. A trained and skilled pipe welder should be engaged for the job. HDPE pipe welding uses a welding machine. In butt welding and fusion areas i.e. pipe or fitting ends, these are heated and joined by mechanical pressure.

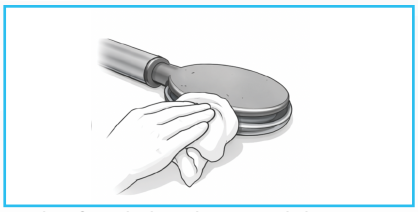
1. Cleaning



Ensure all pipe ends, fitting surfaces, and the heating plate are thoroughly cleaned.

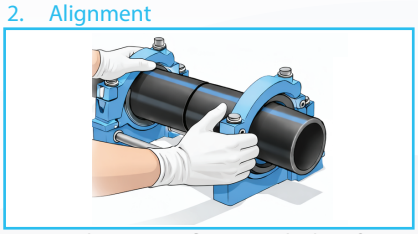


Remove dirt, grease, moisture, and any contaminants that could affect the weld quality.

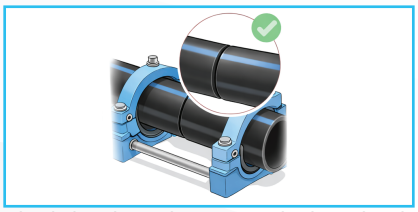


Use lint-free cloth and approved cleaning agents for best results.

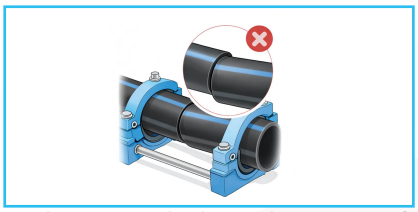
2. Alignment



Position the pipes or fittings in the butt fusion machine clamps.



Check that the ends are properly aligned and match in size and shape.



Misalignment can lead to weak joints, so verify alignment before proceeding.

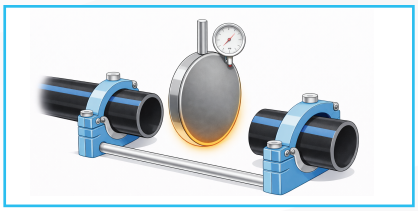
3. Heating



The heating plate must be equipped with a thermometer or a built-in temperature control device.

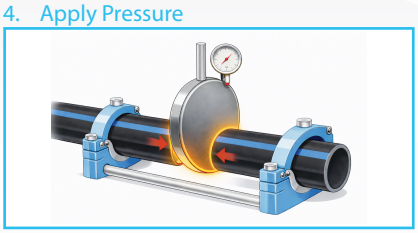


Heat the plate to the recommended fusion temperature (typically around 200–220°C, depending on the material).

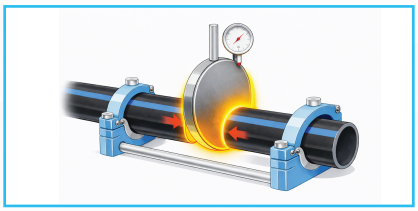


Once the correct temperature is reached, insert the heating plate between the pipe-ends in the machine.

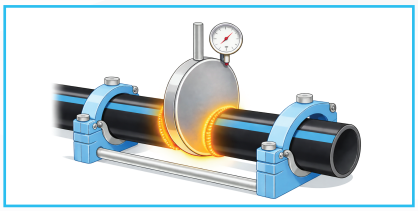
4. Apply Pressure



Press the pipe-ends against the heating plate with the specified force.

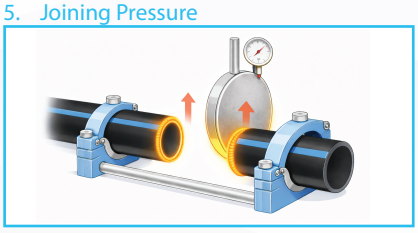


Maintain pressure until a uniform melt bead forms around the entire circumference of both pipe-ends.

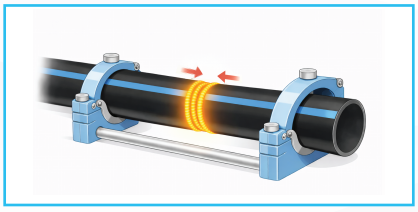


This bead indicates proper heat penetration for a strong weld.

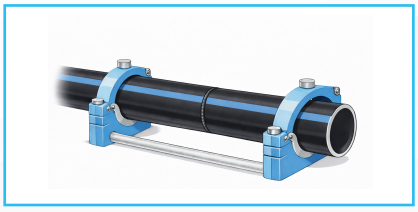
5. Joining Pressure



After the prescribed heating time, quickly remove the heating plate.



Immediately push the molten pipe-ends together under the required pressure.

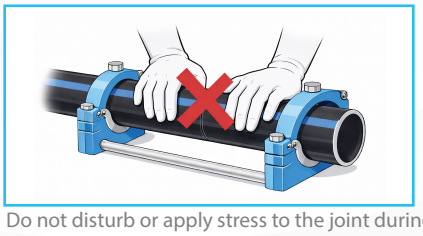


Hold the pressure steadily to ensure a homogeneous joint without gaps or misalignment.

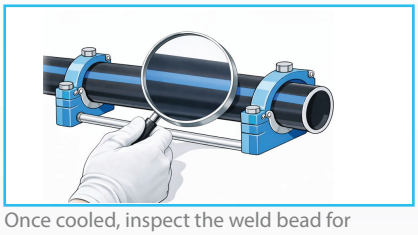
6. Cooling



Allow the joint to cool naturally for the recommended time based on the pipe size and material.



Do not disturb or apply stress to the joint during cooling, as this can compromise strength.



Once cooled, inspect the weld bead for uniformity and integrity.

Specifications of HDPE Pipes as per IS 4984:2022
Standar Dimension Ration (SDR) and Corresponding Wall Thickness of Pipes

SDR	SDR 41		SDR 33		SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9		SDR 7.4		SDR 6	
PE 63	PN 2		PN 2.5		PN 3.2		PN 4		PN 5		PN 6		PN 8		-		-		-	
PE 80	PN 2.5		PN 3.2		PN 4		PN 5		PN 6		PN 8		PN 10		PN 12.5		PN 16		PN 20	
PE 100	PN 3		PN 4		PN 5		PN 6		PN 8		PN 10		PN 12.5		PN 16		PN 20		-	
Nominal Dia (OD)	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	2.1	2.2	2.5	2.7	3.1
20	-	-	-	-	-	-	-	-	-	-	-	-	1.9	2.2	2.3	2.6	2.7	3.1	3.4	3.8
25	-	-	-	-	-	-	-	-	-	-	1.9	2.2	2.3	2.6	2.8	3.2	3.4	3.8	4.2	4.7
32	-	-	-	-	-	-	-	-	1.9	2.2	2.4	2.7	2.9	3.3	3.6	4.1	4.4	4.9	5.4	6.0
40	-	-	-	-	-	-	1.9	2.2	2.4	2.7	3.7	4.2	4.5	5.1	4.5	5.1	5.4	6.0	6.7	7.5
50	-	-	-	-	2.0	2.3	2.4	2.7	3.0	3.4	4.6	5.2	5.6	6.3	5.6	6.3	6.8	7.6	8.4	9.3
63	-	-	-	-	2.5	2.9	3.0	3.4	3.7	4.2	5.8	6.5	7.0	7.8	7.0	7.8	8.6	9.6	10.5	11.7
75	1.9	2.2	2.3	2.6	2.9	3.3	3.6	4.1	4.5	5.1	5.6	6.3	6.9	7.7	8.4	9.3	10.2	11.3	12.5	13.9
90	2.2	2.5	2.8	3.2	3.5	4.0	4.3	4.8	5.3	5.9	6.7	7.5	8.2	9.1	10.0	11.1	12.2	13.5	15.0	16.6
110	2.7	3.1	3.4	3.8	4.3	4.8	5.9	6.6	6.5	7.3	8.1	9.0	10.0	11.1	12.3	13.6	14.9	16.5	18.4	20.3
125	3.1	3.5	3.8	4.3	4.8	5.4	6.0	6.7	7.4	8.2	9.2	10.2	11.4	12.7	13.9	15.4	16.9	18.7	20.9	23.1
140	3.5	4.0	4.3	4.8	5.4	6.0	6.7	7.5	8.3	9.2	10.3	11.4	12.8	14.2	15.6	17.3	19.0	21.0	23.4	25.8
160	3.9	4.4	4.9	5.5	6.2	6.9	7.7	8.6	9.5	10.6	11.8	13.1	14.6	16.2	17.8	19.7	21.7	24.0	26.7	29.5
180	4.4	4.9	5.5	6.2	7.0	7.8	8.6	9.6	10.6	11.8	13.3	14.7	16.4	18.1	20.0	22.1	24.4	26.9	30.0	33.1
200	4.9	5.5	6.1	6.8	7.7	8.6	9.6	10.7	11.8	13.1	14.7	16.3	18.2	20.1	22.3	24.6	27.1	29.9	33.4	36.8
225	5.5	6.2	6.9	7.7	8.7	9.7	10.8	12.0	13.3	14.7	16.6	18.4	20.5	22.7	25.0	27.6	30.5	33.7	37.5	41.4
250	6.1	6.8	7.6	8.5	9.7	10.8	12.0	13.3	14.7	16.3	18.4	20.3	22.8	25.2	27.8	30.7	33.8	37.3	41.7	46.0
280	6.9	7.7	8.5	9.5	10.8	12.0	13.4	14.8	16.5	18.3	20.6	22.8	25.5	28.2	31.2	34.4	37.9	41.8	46.7	51.5
315	7.7	8.6	9.6 1	0.7	12.2	13.5	15.0	16.6	18.6	20.6	23.2	25.6	28.7	31.7	35.0	38.6	42.6	47.0	52.5	57.9
355	8.7	9.7	10.8	12.0	13.7	15.2	16.9	18.7	20.9	23.1	26.1	28.8	32.3	35.6	39.5	43.6	48.0	52.9	59.2	65.2
400	9.8	10.9	12.2	13.5	15.4	17.0	19.1	21.1	23.6	26.1	29.5	32.6	36.4	40.1	44.5	49.1	54.1	59.6	66.7	73.5
450	11.0	12.2	13.7	15.2	17.3	19.1	21.5	23.8	26.5	29.3	33.1	36.5	40.9	45.1	50.0	55.1	60.9	67.1	75.0	82.6
500	12.2	13.5	15.2	16.8	19.3	21.3	23.9	26.4	29.5	32.6	36.8	40.6	45.5	50.2	55.6	61.3	67.6	74.5	83.4	91.8
560	13.7	15.2	17.0	18.8	21.6	23.9	26.7	29.5	33.0	36.4	41.2	45.4	50.9	56.1	62.3	68.6	75.7	83.4	93.4	102.8
630	15.4	17.0	19.1	21.1	24.3	26.8	30.0	33.1	37.1	40.9	46.4	51.1	57.3	63.1	70.0	77.1	85.2	93.8	105.0	115.6
710	17.3	19.1	21.6	23.9	27.3	30.1	33.9	37.4	41.8	46.1	52.2	57.5	64.6	71.2	78.9	86.9	96.0	105.7	118.4	130.3
800	19.5	21.6	24.3	26.8	30.8	34.0	38.1	42.0	47.1	51.9	58.9	64.9	72.8	80.2	88.9	97.9	108.2	119.1	-	-
900	22.0	24.3	27.3	30.1	34.7	38.3	42.9	47.3	53.0	58.4	66.2	72.9	81.9	90.2	100.0	110.1	121.7	134.0	-	-
1000	24.4	26.9	30.3	33.4	38.5	42.5	47.7	52.6	58.9	64.9	73.61	81.1	90.9	100.1	111.2	122.4	-	-	-	-
1200	29.3	32.3	36.4	40.1	46.2	50.9	57.2	63.0	70.6	77.8	88.3	97.2	109.1	120.1	-	-	-	-	-	-
1400	34.1	37.6	42.5	46.9	53.9	59.4	66.7	73.5	82.4	90.7	103.0	113.4	-	-	-	-	-	-	-	-
1600	39.0	43.0	48.5	53.5	61.6	67.9	76.2	83.9	94.2	103.7	117.7	129.6	-	-	-	-	-	-	-	-
1800	43.9	48.4	54.6	60.2	69.3	76.3	85.8	94.5	105.9	116.6	-	-	-	-	-	-	-	-	-	-
2000	48.8	53.8	60.6	66.8	77.0	84.8	95.3	104.9	117.7	129.6	-	-	-	-	-	-	-	-	-	-

Specifications of HDPE Pipes as per ISO 4427:2019
Standar Dimension Ration (SDR) and Corresponding Wall Thickness of Pipes

Material Grade & Pressure Rating	PIPE SERIES																			
	SDR-6		SDR-7.4		SDR-9		SDR-11		SDR-13.6		SDR-17		SDR-21		SDR-26		SDR-33		SDR-41	
	S-2.5		S-3.2		S.4		S-5		S.6.3		S-8		S-10		S-12.5		S-16		S-20	
	Nominal Pressure (PN) bar										Nominal Pressure (PN) bar									
PE 40	-		PN 10		PN 8		-		PN 5		PN 4		PN 3.2		PN 2.5		-		-	
PE 63	-		-		-		PN 10		PN 8		-		PN 5		PN 4		PN 3.2		PN 2.5	
PE 80	PN 2.5		PN 20		PN 16		PN 12.5		PN 10		PN 8		PN 6		PN 5		PN 4		PN 3.2	
PE 100	-		PN 25		PN 20		PN 16		PN 12.5		PN 10		PN 8		PN 6		PN 5		PN 4	
Nominal Dia	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
16	3.0	3.4	2.3	2.7	2.0	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	3.4	3.9	3.0	3.4	2.3	2.7	2.0	2.3	-	-	-	-	-	-	-	-	-	-	-	-
25	4.2	4.8	3.5	4.0	3.0	3.4	2.3	2.7	2.0	2.3	-	-	-	-	-	-	-	-	-	-
32	5.4	6.1	4.4	5.0	3.6	4.1	3.0	3.4	2.4	2.8	2.0	2.3	-	-	-	-	-	-	-	-
40	6.7	7.5	5.5	6.2	4.5	5.1	3.7	4.2	3.0	3.5	2.4	2.8	2.0	2.3	-	-	-	-	-	-
50	8.3	9.3	6.9	7.7	5.6	6.3	4.6	5.2	3.7	4.2	3.0	3.4	2.4	2.8	2.0	2.3	-	-	-	-
63	10.5	11.7	8.6	9.6	7.1	8.0	5.8	6.5	4.7	5.3	3.8	4.3	3.0	3.4	2.5	2.9	-	-	-	-
75	12.5	13.9	10.3	11.5	8.4	9.4	6.8	7.6	5.6	6.3	4.5	5.1	3.6	4.1	2.9	3.3	-	-	-	-
90	15.0	16.7	12.3	13.7	10.1	11.3	8.2	9.2	6.7	7.5	5.4	6.1	4.3	4.9	3.5	4.0	-	-	-	-
110	18.3	20.3	15.1	16.8	12.3	13.7	10	11.1	8.1	9.1	6.6	7.4	5.3	6.0	4.2	4.8	-	-	-	-
125	20.8	23.0	17.1	19.0	14.0	15.6	11.4	12.7	9.2	10.3	7.4	8.3	6.0	6.7	4.8	5.4	-	-	-	-
140	23.3	25.8	19.2	21.3	15.7	17.4	12.7	14.1	10.3	11.5	8.3	9.3	6.7	7.5	5.4	6.1	-	-	-	-
160	26.6	29.4	21.9	24.2	17.9	19.8	14.6	16.2	11.8	13.1	9.5	10.6	7.7	8.6	6.2	7.0	-	-	-	-
180	29.9	33.0	24.6	27.2	20.1	22.3	16.4	18.2	13.3	14.8	10.7	11.9	8.6	9.6	6.9	7.7	-	-	-	-
200	33.2	36.7	27.4	30.3	22.4	24.8	18.2	20.2	14.7	16.3	11.9	13.2	9.6	10.7	7.7	8.6	-	-	-	-
225	37.4	41.3	30.8	34.0	25.2	27.9	20.5	22.7	16.6	18.4	13.4	14.9	10.8	12	8.6	9.6	-	-	-	-
250	41.5	45.8	34.2	37.8	27.9	30.8	22.7	25.1	18.4	20.4	14.8	16.4	11.9	13.2	9.6	10.7	-	-	-	-
280	46.5	51.3	38.3	42.3	31.3	34.6	25.4	28.1	20.6	22.8	16.6	18.4	13.4	14.9	10.7	11.9	-	-	-	-
315	52.3	57.7	43.1	47.6	35.2	38.9	28.6	31.6	23.2	25.7	18.7	20.7	15	16.6	12.1	13.5	9.7	10.8	7.7	8.6
355	59.0	65.0	48.5	53.5	39.7	43.8	32.2	35.6	26.1	28.9	21.1	23.4	16.9	18.7	13.6	15.1	10.9	12.1	8.7	9.7
400	-	-	54.7	60.3	44.7	49.3	36.3	40.1	29.4	32.5	23.7	26.2	19.1	21.2	15.3	17.0	12.3	13.7	9.8	10.9
450	-	-	61.5	67.8	50.3	55.5	40.9	45.1	33.1	36.6	26.7	29.5	21.5	23.8	17.2	19.1	13.8	15.3	11	12.2
500	-	-	-	-	55.8	61.5	45.4	50.1	36.8	40.6	29.7	32.8	23.9	26.4	19.1	21.2	15.3	17	12.3	13.7
560	-	-	-	-	62.5	68.9	50.8	56.0	41.2	45.5	33.2	36.7	26.7	29.5	21.4	23.7	17.2	19.1	13.7	15.2
630	-	-	-	-	70.3	77.5	57.2	63.1	46.3	51.1	37.4	41.3	30.0	33.1	24.1	26.7	19.3	21.4	15.4	17.1
710	-	-	-	-	79.3	87.4	64.5	71.1	52.2	57.6	42.1	46.5	33.9	37.4	27.2	30.1	21.8	24.1	17.4	19.3
800	-	-	-	-	89.3	98.4	72.6	80.0	58.8	64.8	47.4	52.3	38.1	42.1	30.6	33.8	24.5	27.1	19.6	21.7
900	-	-	-	-	-	-	81.7	90.0	66.2	73.0	53.3	58.8	42.9	47.3	34.4	38.3	27.6	30.5	22	24.3
1000	-	-	-	-	-	-	90.2	99.4	72.5	79.9	59.3	65.4	47.7	52.6	38.2	42.2	30.6	33.5	24.5	27.1
1200	-	-	-	-	-	-	-	-	88.2	97.2	67.9	74.8	57.2	63.1	45.9	50.6	36.7	40.5	29.4	32.5
1400	-	-	-	-	-	-	-	-	102.9	113.3	82.4	90.8	66.7	73.5	53.5	59.0	42.7	47.3	34.3	37.9
1600	-	-	-	-	-	-	-	-	117.6	129.5	94.1	103.7	76.2	84	61.2	67.5	49.0	54.0	39.2	43.3
1800	-	-	-	-	-	-	-	-	-	-	105.9	116.6	85.7	94.1	69.1	76.2	54.5	60.1	43.8	48.3
2000	-	-	-	-	-	-	-	-	-	-	117.6	129.5	95.2	104.9	76.9	84.7	60.6	66.8	48.8	53.8

Specifications HDPE Pipes as per IS 14333:2022
Pressure Ratings and Corresponding Wall Thickness of Pipes

MATERIAL GRADE PE63

O.D		PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
		W.T		W.T		W.T		W.T		W.T		W.T		W.T	
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
63.0	63.6	-	-	4.00	4.60	5.80	6.60	7.50	8.50	9.00	10.10	10.90	12.20	13.30	14.90
75.0	75.7	3.00	3.50	4.70	5.40	6.90	7.80	8.90	10.00	10.80	12.10	13.00	14.50	15.80	17.60
90.0	90.9	3.60	4.20	5.70	6.50	8.20	9.30	10.60	11.90	12.90	14.40	15.60	17.40	19.00	21.10
110.0	111.0	4.40	5.10	6.90	7.80	10.00	11.2	13.00	14.50	15.80	17.60	19.00	21.10	23.20	25.80
125.0	126.2	5.00	5.70	7.90	8.90	11.40	12.80	14.80	16.50	17.90	19.90	21.60	24.00	26.40	29.30
140.0	141.3	5.60	6.40	8.80	9.90	12.80	14.30	16.50	18.40	20.00	22.20	24.20	26.90	29.50	32.70
160.0	161.5	6.40	7.30	10.00	11.20	14.60	16.30	18.90	21.00	22.90	25.40	27.60	30.60	33.70	37.30
180.0	181.7	7.20	8.20	11.30	12.70	16.40	18.30	21.20	23.60	25.80	28.60	31.10	34.50	37.90	41.90
200.0	201.8	8.00	9.00	12.50	14.00	18.20	20.30	23.60	26.20	28.60	31.70	34.50	38.20	42.20	46.70
225.0	227.1	9.00	10.10	14.10	15.80	20.50	22.80	26.50	29.40	32.20	35.70	38.80	42.90	47.40	52.40
250.0	252.3	10.00	11.20	15.70	17.50	22.80	25.30	29.50	32.70	35.80	39.60	43.20	47.80	52.70	58.20
280.0	282.6	11.20	12.60	17.50	19.50	25.50	28.30	33.00	36.50	40.00	44.20	48.30	53.40		
315.0	317.9	12.60	14.10	19.70	21.90	28.70	31.80	37.10	41.10	45.00	49.70	54.40	60.10		
355.0	358.2	14.20	15.90	22.20	24.70	32.30	35.80	41.80	46.20	50.80	56.10	-	-	-	-
400.0	403.6	16.00	18.60	25.00	29.00	36.40	42.10	47.10	54.40	57.20	66.00	-	-	-	-
450.0	454.1	18.00	20.90	28.20	32.70	41.00	47.40	53.00	61.20	-	-	-	-	-	-
500.0	504.5	20.00	23.20	31.30	36.20	45.50	52.60	-	-	-	-	-	-	-	-
560.0	565.0	22.40	26.00	35.00	40.50	51.00	58.90	-	-	-	-	-	-	-	-
630.0	635.7	25.20	29.20	39.40	45.60	57.30	66.10	-	-	-	-	-	-	-	-
710.0	716.4	28.40	32.90	44.40	51.30	-	-	-	-	-	-	-	-	-	-
800.0	807.2	32.00	37.00	50.0	57.70	-	-	-	-	-	-	-	-	-	-
900.0	908.1	36.00	41.60	56.30	65.00	-	-	-	-	-	-	-	-	-	-
1000.0	1009.0	40.00	46.20	-	-	-	-	-	-	-	-	-	-	-	-

Specifications HDPE Pipes as per IS 14333:2022
Pressure Ratings and Corresponding Wall Thickness of Pipes

MATERIAL GRADE PE80

O.D		PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
		W.T		W.T		W.T		W.T		W.T		W.T		W.T	
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
63.0	63.6	-	-	3.0	3.5	4.4	5.1	5.8	6.6	7.0	7.9	8.6	9.7	10.5	11.8
75.0	75.7	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
90.0	90.9	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
110.0	111	3.4	4	5.3	6.1	7.7	8.7	10.0	11.2	12.3	13.8	14.9	16.6	18.4	20.5
125.0	126.2	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
140.0	141.3	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
160.0	161.5	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
180.0	181.7	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
200.0	201.8	6.1	7.0	9.6	10.8	14	15.6	18.2	20.3	22.3	24.8	27.1	30.1	33.4	37.0
225.0	227.1	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
250.0	252.3	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
280.0	282.6	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
315.0	317.9	9.6	10.8	15.0	16.7	22	24.4	28.7	31.8	35.0	38.7	42.6	47.1	52.5	58.0
355.0	358.2	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
400.0	403.6	12.2	14.3	19.1	22.2	28	32.4	36.4	42.1	44.5	51.4	54.1	62.5	-	-
450.0	454.1	13.7	16	21.5	25.0	31.4	36.4	41.0	47.4	50.0	57.7	-	-	-	-
500.0	504.5	15.2	17.7	23.9	27.7	34.9	40.4	45.5	52.6	55.6	64.2	-	-	-	-
560.0	565	17.0	19.8	26.7	31.0	39.1	45.2	51.0	58.9	-	-	-	-	-	-
630.0	635.7	19.1	22.2	30.0	34.7	44.0	50.8	57.3	66.1	-	-	-	-	-	-
710.0	716.4	21.6	25.1	33.9	39.2	49.6	57.3	-	-	-	-	-	-	-	-
800.0	807.2	24.3	28.2	38.1	44.1	55.9	64.5	-	-	-	-	-	-	-	-
900.0	908.1	27.3	31.6	42.9	49.6	-	-	-	-	-	-	-	-	-	-
1000.0	1009	30.4	35.2	47.7	55.1	-	-	-	-	-	-	-	-	-	-

Specifications HDPE Pipes as per IS 14333:2022
Pressure Ratings and Corresponding Wall Thickness of Pipes

MATERIAL GRADE PE100

O.D		PN 6		PN 8		PN 10		PN 12.5		PN 16	
		W.T		W.T		W.T		W.T		W.T	
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
63.6	63.6	3.6	4.2	4.7	5.4	5.8	6.6	7.0	7.9	8.7	9.8
75.0	75.7	4.3	5.0	5.6	6.4	6.9	7.8	8.4	9.5	10.4	11.7
90.0	90.9	5.1	5.9	6.7	7.6	8.2	9.3	10.0	11.2	12.5	14.0
110.0	111.0	6.3	7.2	8.2	9.3	10.0	11.2	12.3	13.8	15.2	17.0
125.0	126.2	7.1	8.1	9.3	10.5	11.4	12.8	13.9	15.5	17.3	19.3
140.0	141.3	8.0	9.0	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160.0	161.5	9.1	10.3	11.9	13.3	14.6	16.3	17.8	19.8	22.1	24.6
180.0	181.7	10.2	11.5	13.4	15.0	16.4	18.3	20.0	22.2	24.9	27.6
200.0	201.8	11.4	12.8	14.9	16.6	18.2	20.3	22.3	24.8	27.6	30.6
225.0	227.1	12.8	14.3	16.7	18.6	20.5	22.8	25.0	27.7	31.1	34.5
250.0	252.3	14.2	15.9	18.6	20.7	22.8	25.3	27.8	30.8	34.5	38.2
280.0	282.6	15.9	17.7	20.8	23.1	25.5	28.3	31.2	34.6	38.7	42.8
315.0	317.9	17.9	19.9	23.4	26.0	28.7	31.8	35.0	38.7	43.5	48.1
355.0	358.2	20.1	22.4	26.3	29.2	32.3	35.8	39.5	43.7	49.0	54.1
400.0	403.6	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7
450.0	454.1	25.5	29.6	33.4	38.7	41.0	47.4	50.0	57.7	-	-
500.0	504.5	28.4	32.9	37.1	42.9	45.5	52.6	55.6	64.2	-	-
560.0	565.0	31.7	36.7	41.5	48.0	51.0	58.9	-	-	-	-
630.0	635.7	35.7	41.3	46.7	54.0	57.3	66.1	-	-	-	-
710.0	716.4	40.2	46.5	52.6	60.7	-	-	-	-	-	-
800.0	807.2	45.3	52.3	-	-	-	-	-	-	-	-
900.0	908.1	51.0	58.9	-	-	-	-	-	-	-	-
1000.0	1009.0	56.7	65.5	-	-	-	-	-	-	-	-

Note:
Sizes above 500mm will be made as per the order.
Pipe with traceable copper wire is also available as per the order.
Molded fittings and Electrofusion welded fittings are available based on the order.



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