

PEFit GAS

MDPE PIPING SYSTEMS

PIPES FOR CITY GAS DISTRIBUTION



Pipes as per
IS 14885:2001



PE80 & PE 100

STATE-OF-THE-ART MANUFACTURING UNITS



BEGUSARAI - BIHAR
PIPES & FITTINGS



HYDERABAD - TELANGANA
PIPES, FITTINGS & WATER TANKS



JOBNER - RAJASTHAN
PIPES & WATER TANKS



KOLHAPUR - MAHARASHTRA
PIPES



CHENNAI - TAMIL NADU
PIPES



HARIDWAR - UTTARAKHAND
PIPES, FITTINGS & WATER TANKS



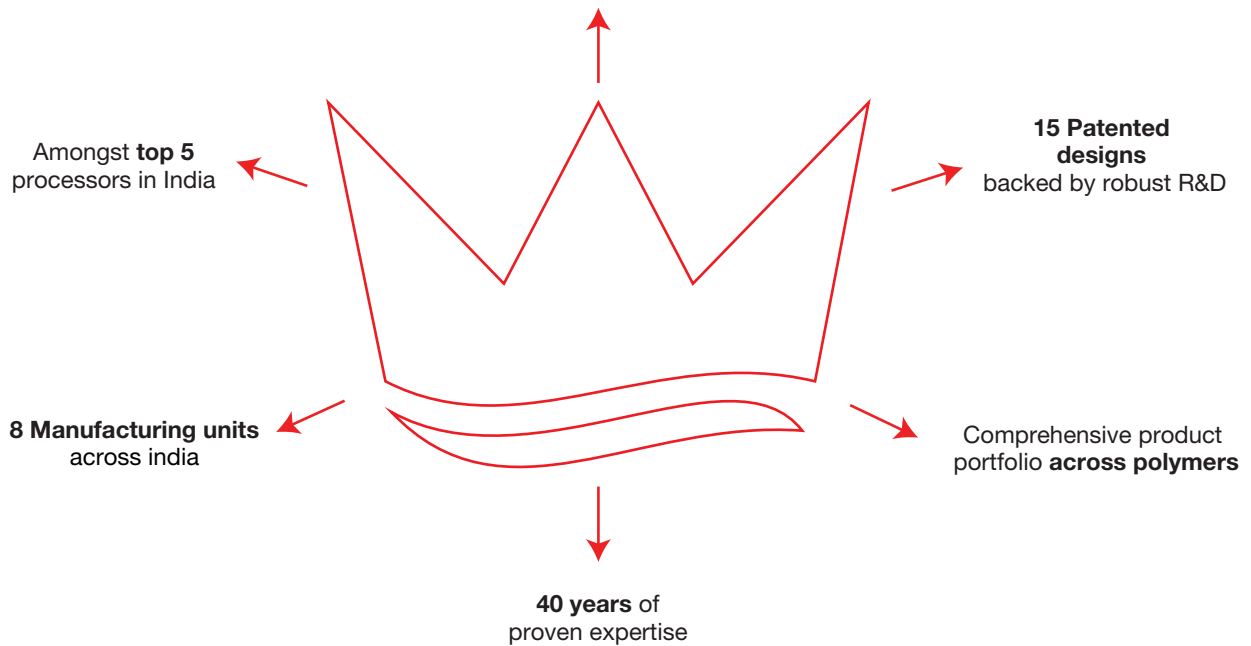
DADRA - SILVASSA
PIPES & WATER TANKS



ATHAL - SILVASSA
FITTINGS

COMPANY OVERVIEW

One of India's largest integrated piping solutions



PRODUCT COLLABORATION



AWARDS & CERTIFICATIONS



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Introduction

At Prince Pipes, we believe in creating products that make a difference. From the procurement of raw materials to actually manufacturing the final product, we have always aimed at bringing down emission levels. Our strong belief in the concept of 'better lasts longer' has helped us deliver premium-quality products that are also durable and sustainable, thereby helping us to create a better future for generations to come. Over the past few decades, our commitment to innovation has driven the development and production of a diverse array of flexible and intelligent PE pipe solutions that Addresses the needs of society, be it residential, industrial, commercial, or agricultural.



WHY PEFit GAS MDPE PIPES?

Prince PEFIT Gas MDPE Pipes offer a versatile range of gas pipes ranging from 20 to 315mm and are available in PE80 & PE100 variants. These pipes are meticulously crafted to accommodate various standard dimension ratios (SDRs), ensuring seamless integration into different piping systems. Prince PEFIT Gas MDPE Pipes are manufactured as per IS14885. These pipes are installed using industry standard electrofusion welding methods.

Polyethylene is an environmentally friendly hydrocarbon product, and hence it promotes sustainability in various applications. Polyethylene (PE) pipes are meticulously crafted, cutting-edge solution for the conveyance of natural gas in buried pipeline installations. These offerings are for a spectrum of needs, from new gas pipeline installations to the refurbishment and modernization of existing infrastructure, while ensuring optimal performance and longevity.

Our PE piping solutions are manufactured in facilities accredited with ISO 9001:2008 for quality management, ISO 14001:2015 for environmental management, ISO 45001:2018 for occupational health and safety management, and ISO 50001:2018 for energy management. These certifications ensure that our products meet the highest national and international standards, providing a comprehensive solution for all gas pipeline network needs.

Prince PEFit Gas MDPE Pipes provide the safest, most cost-effective solution for piped gas distribution systems.



Pipes as per
IS 14885:2001



ADVANTAGES

THE PERFECT CHOICE FOR CITY GAS DISTRIBUTION



EASY TO INSTALL

It is lighter than any metal pipe and hence easy to install



HIGHER IMPACT STRENGTH

High impact strength making it very strong



CHEMICAL & CORROSION RESISTANCE

Chemically resistant and inert which helps in withstanding corrosive soil



RESISTANCE TO GROUND MOVEMENT & LOADS

Capable of withstanding high internal and external loads by balancing internal fluid pressure with external soil pressure



HIGH ABRASION RESISTANCE

Highly resistant to abrasion and suitable for transportation of slurry, boiler ash, beach sand, etc



EXCELLENT FLEXIBILITY

The flexibility of MDPE piping systems allows them to adapt to the contour of the land as well as to directional changes, and they can be supplied jointless in long lengths of up to 100metre in coil form



EASY JOINTING

Easy weldability ensures quick joining by the most reliable electrofusion method



HIGH CRACK RESISTANCE

High resistance to both slow and rapid crack propagation



EXCELLENT ESCR

Due to viscoelastic nature of the polymer, PEFit Gas pipes have excellent life

KEY APPLICATIONS

FULFILLING A SPECTRUM OF NEEDS

- Natural Gas/Vapourized LPG Conveyance & Distribution
- Industrial Gas Distribution
- Landfill & Leachate Gas Extraction & Conveyance
- Biogas & Propane

PRODUCT RANGE:

DIAMETER SIZE	MATERIAL CLASSIFICATION	WORKING PRESSURE	END CONNECTION
20 mm to 315 mm	PE 80 (Yellow) & PE 100 (Orange)	SDR 11 & SDR 17	Electrofusion
NOMINAL SIZE	COIL FORM LENGTH	STRAIGHT PIPE LENGTH (IN MTR)	
20 mm	1000 mtr.	6 mtr.	
25 mm			
32 mm			
40 mm	500 mtr.		
50 mm			
63 mm	300 mtr.		
75 mm			
90 mm	200 mtr.		
110 mm	150 mtr.		
120 mm - 315 mm	NA		

MATERIAL SPECIFICATIONS

CLASSIFICATION OF THE MATERIAL AS PER IS14885:2022		
Material	Minimum Required Strength of material in MPa at 200°C for 50 years	Maximum Allowable Hydrostatic Design Stress () in MPa at 20°C
PE 80	8	4
PE 100	10	5

The values of hydrostatic design stress (s) given above are arrived at by dividing the MRS values by the service design coefficient 'C', i.e., $s = MRS / C$.

CHARACTERISTICS OF POLYETHYLENE COMPOUND AS PER IS14885:2022					
No	Characteristics	Unit	Requirements	Test Parameters	Test Method
1	Conventional Density	Kg/m ³	≈ 928.4 (base polymer) ≈ 930.0 (base polymer)	23°C 27°C	IS 7328 : 2020
2	Melt Flow Index	g/10mi	= $\pm 20\%$ of value nominated by compound producer PE – 80 (0.41 to 0.90) PE- 100 (0.20 to 0.40)	190°C/5.0kg	IS 2530 : 1963
3	Thermal Stability	min	≥ 20	200°	Annex B of IS 4984
4	Resistance to gas constituents	h	≥ 20	80°	Clause 5.5
5	Pigment Dispersion	Grade	≤ 3	No of test pieces=01	Annex A of IS 4984
6	Water Content	mg/kg	≤ 350		Annex D of IS 4984

ELECTRO FUSION JOINTING METHOD

For the installation of Electrofusion fittings following steps to be followed:

- Thoroughly clean the surface of pipe ends and electrofusion fitting internal surface with clean cloth.
- Insert the pipe ends inside the fitting till the socket end.
- Connect the supply wires of electrofusion control unit to terminals of electrofusion fittings. Electrofusion control unit controls the heating process and temperature requirements.
- Scan the bar code provided on fitting with barcode scanner which is attached to electrofusion control unit. By scanning the bar code electrofusion control unit select the necessary parameters such as voltage and time required for fusion of fitting.
- Apply control voltage to heating wires, electrofusion process starts.
- Electrofusion fitting and pipe start melting process and nally fusion of pipe and fitting complete.
- Maintain the joint holding pressure on pipe and fittings until the joint cools and solidies.



PRINCE PIPES AND FITTINGS LIMITED

Mfg. & Exporters of UPVC, CPVC, PPR, HDPE & PP Pipes, Fittings, Valves & Water Tanks

Corporate Office:

The Ruby, 8th Floor, 29, Senapati Bapat Marg (Tulsi Pipe Road),
Dadar (W), Mumbai - 400028, Maharashtra, India.
F: 022-6602 2220 | E: info@princepipes.com

Branch Offices:

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