

Polyethylene is a thermoplastic polymer consisting of long chains produced by combining the ingredient monomer ethylene. The ethylene actually converts to ethane as it takes its place in a polymer and straight sections of the polymer are the same structure as the simple chain hydrocarbons, e.g., propane, decane and other straight single-bonded carbon chains. HDPE has a low degree of branching and stronger intermolecular forces and tensile strength.

## Key Features:-

- Thermal resistant Application possible between -40°C & 80°C.
- Application in open air unrestricted through coloring with carbon black.
- Homogeneous welded joints - Pull tight and leak proof.
- Prefabrication = Fast and cost-saving installation.
- Light in weight = Cost saving in transport and handling.
- No condensation possible during short periods of cooling.
- Easy installation using butt-welding and electro-fusion techniques.
- Non conductive.
- Environmental friendly.
- Smooth internal wall Low blockage.
- Impact-resistant and tough.
- Lower cost due to relative long life.
- Suitable for underground pipes.
- Suitable for transport of polluted waste water.

## Technical Details:

Pipe - Grades	Range (in mm Ø)
HDPE (PE 80 / 100)	20mm to 800mm Upto SDR 11
MDPE (PE 80 / 100)	20mm to 400mm Upto SDR 9
LDPE	6mm to 16mm tubing
Other	Gas Piping, Conductive, Slotted, Liner Pipes, Anti Rodent, etc.

Fittings Grade	Moulded	Fabricated	Electrofusion
Elbows, Bends	20-225	160-1000	20-315
Tees	20-180	200-1000	20-315
Cross/ Wyes/ Branch		20-315	
Stub Flanges, End Cap, Conc / Exec Reducers, Backing Flanges	20-1200		
Flanges w/ Steel core	20-800		
Sweep Bends	20-315		
Pull Tees Barred		20-630	
Couplers	20-630		20-315
Compression Fittings	20-90		



## Applications:-

- Municipal
- Industrial
- Marine / Dredging
- Agriculture
- Electrical
- Recreation
- Infrastructure
- Geo Thermal Heating
- Aquaculture
- Culverts
- Ventilation
- Float docks
- Residential
- Sanitation



## Typical Properties

Properties	Test Method	Unit	Value				
			PE63	PE80	PE100	MDPE	LDPE
Specific gravity ( $\rho$ )	ISO 1183	g/cm <sup>3</sup>	>0.94	>0.94	>0.94	>0.93	>0.92
Water saturation	ISO 15512	%	0.01	0.01	0.01	0.01	0.01
Max. permissible service temperature		°C	45	45	45		80
Lower permissible service temperature		°C	-65	-65	-65		50
Tensile strength at yield	ISO 527	Mpa	>19	>21	>23	>14	>11
Tensile strength at break	ISO 527	Mpa	>21	>23	>25	>17	>14
Elongation at yield	ISO 527	%	>8	>8	>8		
Elongation at break	ISO 527	%	>600	>600	> 600	≥600	≥600
Notch impact strength	ISO 179	KJ/m <sup>2</sup>			26		85
Impact strength	ISO 179	KJ/m <sup>2</sup>	NB	NB	NB	No Break	No Break
Modulus of elasticity	ISO 899	Mpa	>600	>700	>850	760	260
Shore hardness	ISO 868	Shore -D	>61	>61	>61	53-62@73 <sup>u</sup> F	55
Flexural strength	ISO 178	Mpa	22	22	22	40	80
Vicat Softening Temperature	ISO 306	°C	>70	>70	>70	80	94
Heat deflection temperature					18 x 10 <sup>4</sup>		96
Coef. of linear therm. expansion ( $\alpha$ )						1.5	1.4

N.B.: Technical data refers to average values. The information provided above is based on the values measured in our laboratory as well as independent laboratories. The quoted values are based on specific resin properties and are subject to change without prior notice.

For further details on the product, kindly contact us at :

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