



POLYTECH™ PE-RT PIPES

Polytech PE-RT pipes are manufactured in accordance to DIN 16833 standards from Raised Temperature Polyethylene with advanced polymeric structure which makes them the best solution for a wide range of liquid transportation.

Some of the advantages of *Polytech* PE-RT pipes over other plastics and metal piping systems are listed below.

- Very high operational temperatures
- Non-corrosive
- Flexible
- Higher impact strength at lower temperatures
- Quick Installation



POLYTECH™ PE-RT Pipes Thickness & Length in Accordance to DIN 16833				
Outer Diameter (mm)	Wall Thickness (mm)	Standard Dimension Ratio	Compressive Strength (According to the Installation Type)	Length (m)
16	2.2	SDR 7.4	1/10; 2/10; 4/10; 5/10	100
20	2.8	SDR 7.4	1/10; 2/10; 4/10; 5/11	50



Eco-Friendly

PE-RT pipes are eco-friendly as they can be recycled and re-used. They are resistant to chlorine and chloramine, corrosion, tuberculation, deposits, and freeze-break. Furthermore, PE-RT pipes are light in weight making transportation easier and they have many fitting and joining options making the installation process more convenient.

Quality Assurance

Polytech undergoes strict quality controls according to international standards such as EN ISO 22391-2. The dimensional continuity and accuracy of the pipes are tested at frequent intervals to ensure all the PE-RT pipe rolls are made to the exact same specification and quality.



Properties of POLYTECH™ PE-RT Pipes

- Maximum Working Temperature: 95 degrees Celsius
- Maximum Working Pressure: 1.0MPa (10 bar)
- High Thermal Conductivity: 0.45 W / mK
- Minimum Bending Radius: manual: 5xD (D- pipe diameter)
- Coefficient of Linear Expansion: 0.025mm / mK
- Absolute Roughness: 0.005mm



Mechanical & Thermal Properties of PE-RT Raw Material

Features	Test Method	Unit	Value
Density	ISO 1183	kg/m ³	944
Melt Flow Index, 190 °C/5.0 kg	ISO 1133	g/10 min	0.8
Vicat Softening Point	ASTM D1525	°C	123
Tensile Modulus (1mm/min)	ISO 527	MPa	800
Tensile Strain at Break (50mm/min)	ISO 527-2	%	800
Tensile Stress at Yield (50mm/min)	ISO 527-2	MPa	22
Tensile Stress at Break (50mm/min)	ISO 527-2	MPa	30
Flexural Strength	ASTM D790	kg/cm	5600
Hardness, Shore D	ASTM D2240	-	60
Oxidation Induction Time	ISO 11357-6	min	≥20

Material

Polytech PE-RT pipes use advanced production line with high-grade heat resistant polyethylene material with excellent process ability for high speed extrusion lines to manufacture the best quality of PE-RT pipes. Our raw material also has exceptional properties at both elevated and low temperatures, and good chemical and abrasion resistance. Applications include plumbing, water service, hydronic heating and cooling, snow and ice melting and ground source geothermal piping systems.



Installation Instructions

1. Divide the brass joint into the nut, circle clip and the main body
2. Nest the nut into the pipe
3. Insert the circle clip into the pipe
4. Insert the main body into the pipe
5. Connect the nut and the main body
6. Use a wrench to tighten the connection and finish the installation

