



45GP004Y Yellow Medium Density Polyethylene Compound FOR GAS PIPES

Relene 45GP004Y is Yellow coloured Medium Density PE 80 (MRS > 8 Mpa) material for gas pipe extrusion. It possesses bimodal molecular weight distribution, which improves processability.

This grade meets the MFI, Density & Hydrostatic strength requirements of material grade PE 80 as per IS: 14885:2001. "This grade also meets the requirements of PE: 80 as per ISO 4437 "Polyethylene pipes for the Transportation of Gaseous Fuels."

The grade has been certified for MRS > 8 Mpa as per ISO 9080.

Property	Test Method	Unit	Remarks
Hydrostatic Pressure Test	ISO 1167	Hrs	
9 MPa @ 20°C		–	> 100
4.5 MPa @ 80°C		–	> 165
4.0 MPa @ 80°C		–	> 1000
MRS	ISO 9080	MPa	> 8.0
SCG	ISO 13479	Hrs	> 500
RCP (S4)	ISO 13477	Bar	> 2.8

Typical Characteristics*			
Property	Test Method	Unit	Typical Value**
Melt Flow Index (190°C/5.0 Kg)	ASTM D1238	gm/10 min	0.45
Density (23°C)	ASTM D1505	gm/cm ³	0.940
Pigment Dispersion	IS 14885 / ISO 4437		< 3
Resistance to Gas Constituents	IS 14885 / ISO 4437	Hrs	> 26
Thermal Stability (O.I.T.) 200°C	ASTM D3895	Minutes	> 30
Tensile Strength at Yield	ASTM D638	MPa	25
Elongation at Break	ASTM D638	%	> 600
Flexural Modulus	ASTM D790	MPa	800
Notched Izod Impact Strength	ASTM D256	J/m	No Break
ESCR, F ₅₀	ASTM D1693	Hrs	> 1000

*Typical values not to be taken as specification

**Mechanical Properties are on Compression molded specimen

Applications

PE 80 Gas pipes

Storage Recommendations

- Bags should be stored in dry / closed conditions at temperatures below 50°C and protected from UV / direct sunlight.

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Updated as of October, 2009