



46GP009 HIGH DENSITY POLYETHYLENE

FOR PIPE EXTRUSION & PESTICIDE BOTTLES

Relene 46GP009 (PE:63) is a natural coloured grade for pipe extrusion and for pesticide bottles. It possesses bimodal molecular weight distribution, which improves processability. This grade meets the MFI, Density & Hydrostatic Strength requirements of material grade PE:63 as per IS 4984. When incorporated with adequate quantity of carbon black as specified in clause 5.2.3 of IS: 4984, Pipes will meet PE:63 requirements.

This grade has excellent ESCR properties and suitable for pesticide bottles up to 1 litre capacity.

Typical Characteristics*			
Property	Test Method	Unit	Typical Value**
Melt Flow Index (190°C/5.0 kg)	ASTM D1238	gm/10 min	1
Density (23°C)	ASTM D1505	gm/cm ³	0.946
Thermal Stability (O.I.T.) 200°C	ASTM D3895	Min	>30
Tensile Strength at Yield	ASTM D638	Mpa	24
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 moulding

Applications

- Pipes for drinking water, drip irrigation and sprinkler systems
- Pipes for industrial effluent
- Pesticide bottles

Regulatory Information

- Meets the requirement stipulated in standard IS: 10146-1982 on "Specification for Polyethylene for safe use in contact with foodstuffs, pharmaceuticals, and drinking water". It also conforms to the positive list of constituents as prescribed in IS: 10141-1982. The grade and the additives incorporated in it also comply with the FDA: CFR Title 21, 177.1520, Olefin Polymers. The level of antioxidant in 46GP009 is not more than 0.3% by mass of the resin.

Storage Recommendations

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