



46GP009 HIGH DENSITY POLYETHYLENE FOR PIPE EXTRUSION & PESTICIDE BOTTLES

HD46GP009 is a natural grade of HDPE, produced by Hostalen Stirred Tank Heavy Diluent (STHD) Slurry process. It possesses bimodal molecular weight distribution, which improves processability and mechanical properties. This grade meets the MFI and Density requirements of Material as per IS 4984:1995 on 'High Density Polyethylene pipe for water supply-specification'. When incorporated with adequate quantity of carbon black as specified in clause 5.2.3 of IS 4984:1995, will meet the requirements of the designation PE-EW-C45-T012 mentioned in the clause 5.2 of IS 4984:1995. The pipe made from this grade meets the hydrostatic strength requirement of PE-63 class of pipe as per IS 4984:1995. The grade has excellent ESCR properties and is suitable for pesticide bottles upto 1 litre capacity.

Typical Characteristics*			
Property	Test Method	Unit	Typical Value**
Melt Flow Index (190°C/5.0 kg)	ASTM D1238	gm/10 min	< 1.1
Density (23°C)	ASTM D1505	gm/cm ³	0.946
ESCR, 50°C, 10% Igapol	ASTM D1693	hr	> 1000
Tensile Strength at Yield	ASTM D638	kg/cm ²	240
Elongation at Yield	ASTM D638	%	11
Elongation at Break	ASTM D638	%	> 500

*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 46GP003 is not more than 0.3% by mass of the resin.

Storage Recommendations

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

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