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ARYASASOL PETROCHEMICAL COMPANY

HIGH DENSITY POLYETHYLENE HEX 4460 PE80+

HEX 4460 PE80+ is a high molecular weight, high-density polyethylene (HDPE) with high melt viscosity for extrusion. This grade, which is produced by 1-hexene co-monomer, is classified as PE 80+ and provides excellent stress crack resistance properties (ESCR) combined with very good long-term hydrostatic strength and good process-ability

Producer	Characteristic Properties	Applications
ARYASASOL	Good Resistance to SCG & RCP, Good Creep Strength, Good Process-ability, Good Chemical Resistance	Drinking Water Pipe, Drainage Pipe, Plumbing

Typical Properties

Resin Properties	Unit	Typical Value	Test Method
High Load Melt Flow Index (190oC/ 21.6 kg)	g/10min	6.0	ISO 1133
Density	g/cm ³	0.944	ISO 1183
Tensile Strength at Yield	Mpa	25	ISO 527-1, -2
Elongation at Yield	%	11	ISO 527-1, -2
Elongation at Break	%	> 1000	ISO 527-1, -2
Tensile Strength at Break	MPa	40	ISO 527-1, -2
Tensile Modulus of Elasticity	MPa	700	ISO 527-1, -2
Melting Temperature	°C	129	ISO 3146
Oxidation Induction Time	min	> 30	ISO 11357
Vicat Softening Temperature	°C	126	ISO 306
Tensile Impact Strength (Notched, -30C)	kJ/m ²	167	ISO 8256
Minimum Required Strength (MRS)	MPa	> 8.0	ISO 9080
Resistance to Slow Crack Growth	hrs	> 500	ISO 13479