

Halene H P5200

High Density Polyethylene

Haldia Petrochemicals Ltd.

Technical Data

Product Description

P5200 is a pipe grade HDPE, produced by the Mitsui CX Technology.

This resin is recommended for PE 63 compliant pressure pipes.

P5200 combines excellent processability with good creep resistance, ESCR and mechanical properties.

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Availability	• Asia Pacific		
Features	• Good Creep Resistance	• Good Processability	• High ESCR (Stress Crack Resist.)
Uses	• Piping		
Forms	• Pellets		

Physical	Nominal Value Unit	Test Method
Specific Gravity	0.948 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.80 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance 10% Igepal, Compression Molded, F50	> 1000 hr	ASTM D1693B

Mechanical	Nominal Value Unit	Test Method
Tensile Strength ³		ASTM D638
Yield, Compression Molded	25.0 MPa	
Break, Compression Molded	38.0 MPa	
Tensile Elongation ³		ASTM D638
Yield, Compression Molded	7.0 %	
Break, Compression Molded	750 %	
Flexural Modulus (Compression Molded)	900 MPa	ASTM D790A

Impact	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256A
23°C, Compression Molded	180 J/m	

Hardness	Nominal Value Unit	Test Method
Durometer Hardness		ASTM D2240
Shore D, Compression Molded	62	

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	67.0 °C	ASTM D648
Vicat Softening Temperature	121 °C	ASTM D1525 ⁴
Oxidation Induction Time	> 30 min	ASTM D3895

Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	150 to 180 °C
Cylinder Zone 2 Temp.	150 to 180 °C
Cylinder Zone 3 Temp.	150 to 180 °C
Cylinder Zone 4 Temp.	150 to 180 °C
Cylinder Zone 5 Temp.	150 to 180 °C
Die Temperature	170 to 180 °C