

TECHNICAL DATA SHEET

P5300

P5300 is a pipe grade HDPE, produced by the Mitsui CX Process

P5300 combines exceptional processability with high creep resistance, high ESCR and excellent mechanical properties

P5300 has **MRS 11.2 MPa** according to ISO 9080 and is designated **PE 112** according to ISO 12162:1995

Property	Test Method	Unit	Value
Melt Flow Index (5 kg, 190°C)	ASTM D1238	g/10 min	0.25
Density (27°C)	ASTM D1505	g/cm ³	0.948
Physical Property			
Tensile Strength at Yield		MPa	26
Elongation at Yield	ASTM D638	%	8
Tensile Strength at Break	(50 mm/min)	MPa	41
Elongation at Break		%	650
Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	270
Flexural Modulus	ASTM D790A	MPa	1000
Hardness	ASTM D2240	Shore D	65
ESCR (F ₅₀ , 10% Igepal soln. v/v)	ASTM D1693B	Hr	> 1000
Vicat Softening Point (10 N)	ASTM D1525	°C	125
DSC Melting Temperature	ASTM D3418	°C	131
Oxidative Induction Time	ASTM D3895	Min	> 30
Critical Pressure for Crack Propagation at 0°C	ISO 13477	Bar	≥12

Suggested Processing Conditions

Barrel Temperature	°C	160 - 220
Die Temperature	°C	180 - 220

* Halene H is the registered trademark of High Density Polyethylene of HPL

Mechanical Properties are on specimens from Compression Molded sheets

Pre drying of the material at ~90°C for ~2 hours before processing is recommended.

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