

Product Data

TITANZEX HP6100 FOR PIPE, SHEET EXTRUSION & BLOW MOLDING

CHARACTER HP6100 is a bimodal high density polyethylene resin in natural colour, classified as PE100 material with MRS 10.0 MPa for pipe extrusion. HP6100 meets the U.S. Food and Drug Administration (FDA) criteria for food contact use as specified in 21 CFR 177.1520 (c) 3.1a & 3.2a.

APPLICATIONS Water pipes, municipal pipes, industrial pipes, thick sheets and blow molding applications.

ADVANTAGES Good processability, high mechanical properties and stiffness.
Excellent resistance to slow crack growth and rapid crack propagation

<u>TYPICAL RESIN PROPERTIES</u>	<u>UNIT</u>	<u>HP6100</u> (a)	<u>TEST METHOD</u> (b)
Melt Index (190°C, 5kg)	g/10 min	0.25	ASTM D 1238
Density	g/cm ³	0.949	ASTM D 1505
Vicat Softening Point	°C	125	ASTM D 1525
Oxidative Induction Time (200°C)	min	≥ 20	ASTM D 3895

TYPICAL MECHANICAL PROPERTIES

Tensile Strength at Yield	kg/cm ²	250	ASTM D 638
Tensile Strength at Break	kg/cm ²	380	ASTM D 638
Elongation at Break	%	> 750	ASTM D 638
Flexural Modulus	kg/cm ²	11,400	ASTM D 790
Izod Impact Strength	kg·cm/cm	37	ASTM D 256
Shore Hardness	D Scale	60	ASTM D 2240
Stress Cracking Resistance (F50)	hr	> 1,000	ASTM D 1693 (c)
Minimum Required Strength (MRS) Classification	MPa	10.80	ISO 9080
Resistance to Rapid Crack Propagation (0°C, Test pipe 250 mm, SDR 11)	bar	> 10	ISO 13477
Resistance to Slow Crack Growth (80°C, 9.2 bar)	hr	> 500	ISO 13479
Hydrostatic Strength (20°C, 12.0 MPa)	hr	> 100	ISO 1167
Hydrostatic Strength (80°C, 5.4 MPa)	hr	> 165	ISO 1167
Hydrostatic Strength (80°C, 5.0 MPa)	hr	> 1000	ISO 1167

(a) Values shown are typical and are not to be considered as specifications.

(b) ASTM and ISO test methods are latest under the Society's current procedures.

(c) 10% "Igepal", 1.9mm specimen, slit, 50°C

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