HD 7700MB – (Black Compound – PE100)

ILAM PETROCHEMICAL CO

HIGH DENSITY POLYETHYLENE – PIPE Grade (PE100)

DESCRIPTION

HD7700MB is a High density polyethylene black compound (2.25% P-type carbon black), bimodal technology, classified as a PE100 material providing superior in mechanical properties and process ability. HD 7700MB also shows excellent resistance to rapid crack propagation and slow crack growth (SCG).

HD77000MB is produced under license from Mitsui.

Main Characteristics:

- Exceptional Melt Strength
- High Pressure Pipe Grade

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES (1)			
Melt Flow Rate (MFR)			
at 190°C and 5 kg load	0.27	g/10 min	ISO 1133
at 190°C and 21.6 kg load	8	g/10 min	ISO 1133
Density at 23°C (Compound)	959	kg/m³	ISO 1183
FRR	29.6	-	ISO 1133
MECHANICAL PROPERTIES			
Tensile Stress at Yield (50 mm/min)	24	MPa	ISO 527-2
Tensile Strain at Break	> 500	%	ISO 527-2
Carbon Black Dispersion	< 3	-	ISO 18553
Carbon Black content	2- 2.5	%	ISO 6964
Water Content	< 300	mg/kg	ISO 15512
Volatile Content	< 350	mg/kg	EN 12099
Thermal Stability (210 °C)	> 20	min	EN 728
Resistance to Rapid Crack Propagation, S4 test (10 Bar at 0°C, test pipe 250mm SDR11)	<1175	mm	ISO 13477
Resistance to Slow Crack Growth (9.2bar, 80 °C)	> 500	h	ISO 13479
Hydrostatic strength (5MPa at 80 °C)	> 1000	h	ISO 1167
Hydrostatic strength (12 MPa at 20 °C)	> 100	h	ISO 1167

(1) Molded and tested in accordance with ASTM D4976.

Note:

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

Processing Conditions:

Typical processing conditions for 7700MB Melt temperature: 190-220 °C.

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