

ILPC HDPE 7700M Black

HIGH DENSITY POLYETHYLENE – PIPE Grade

DESCRIPTION

Ilam HDPE 7700M is high molecular weight high-density polyethylene with broad molecular weight distribution. The grade is intended for use in High pressure pipe applications where long -term hydrostatic strength and resistance to slow crack growth are desired. The grade has good processability, exceptional melt strength and ideally suited for both large and small diameter pipes. Carbon black (CB) should be added to the granular PE via LLDPE based masterbatch to obtain ca 2.25% CB in the pipe resin. The carbon black should have a particle size 10-25nm and be well dispersed in the final black pipe grade.

Main Characteristics:

- Hexene High Density Resin
- 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	0.249	g/10 min	ISO 1133
Density at 23°C	958	kg/m ³	ISO 1183
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Stress at Yield	18	MPa	ASTM D638 ¹
Tensile Stress at Break	30	MPa	ASTM D638 ¹
Elongation at Break	600	%	ASTM D638 ¹
Flexural modulus (2% Secant)	690	MPa	ASTM D790B ¹
PENT (slow crack growth; 80°C, 2.4 MPa)	>3000	hr	ASTM F1473
Minimum Required Strength (MRS)	>8	MPa	ISO 9080
Slow Crack Growth Resistance2- NotchedPipe	>500	hr	ISO 13479

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

(2) Tested on 110mm SDR11 pipe.

Note:

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

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