

## TECHNICAL DATA SHEET

## M5002L

**M5002L** is a Narrow MWD HDPE produced by Spherilene Technology

**M5002L** is suited for injection and extrusion-compression molded Caps & Closures

The precise control of morphology & MWD during polymerization confers superior processability, excellent organoleptics & improved performance properties compared to conventional HDPE grades

**BIS Designation Code:** IS 7328-3B-CB-EDB

Property	Test Method	Unit	Nominal Value
Melt Flow Index (2.16 kg, 190°C)	ASTM D1238, IS 13360 (Part 4/Sec 1)	g/10 min	3
Melt Flow Index (5 kg, 190°C)			8
Melt Flow Index (21.6 kg, 190°C)	ASTM D1238	g/10 min	70
Density (23°C)	ASTM D1505, IS 13360 (Part 3/Sec 11)	g/cm <sup>3</sup>	0.950
<b>Physical Property</b>			
Tensile Strength at Yield	ASTM D638 (50 mm/min)	MPa	25
Tensile Strength at Break		MPa	30
Elongation at Break		%	900
Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	180
Flexural Modulus	ASTM D790A	MPa	950
Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	70
Vicat Softening Point (10 N)	ASTM D1525	°C	125
DSC Melting Temperature	ASTM D3418	°C	132
Hardness	ASTM D2240	Shore D	61
<b>Suggested Processing Conditions</b>			
Barrel Temperature	160 – 190 °C		

\* Halene H is the registered trademark of High-Density Polyethylene of Haldia Petrochemicals Limited

Mechanical Properties are on Injection Molded test specimens

This grade meets the requirements of:

IS 7328:2020 Specification for Polyethylene Material for Moulding and Extrusion

IS 16738:2018 Positive List of Constituents for Polypropylene, Polyethylene and their Copolymers for its Safe Use in Contact with Foodstuffs and Pharmaceuticals

IS 10146 for use in contact with foodstuffs, pharmaceuticals and drinking water

*This product is not recommended for manufacturing of Single Use Plastic (SUP) items listed under Plastics Waste Management (PWM) Rule 2016 and its latest amendment*

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