

Technical Datasheet

M0252S Polysure HDPE

Continuous Compression Molding

Product Characteristics:

Polysure M0252S is 1-hexene comonomer based High Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology, suitable for Injection Molding and Continuous Compression Molding processes. M0252S resin offers superior organoleptic properties, ESCR & Low Warpage. The products made from this grade will have good dimensional stability, appearance, and stiffness.

Recommended Applications:

Caps & Closure, Small industrial parts

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	2.5
2	Density (23°C)	ASTM D1505	g/cc	0.952
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	26
4	Tensile Elongation at Break, Type IV Specimen		%	900
5	Flexural Modulus (2% Secant)	ASTM D790B	MPa	1000
6	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	180
7	Vicat Softening Point (10N)	ASTM D1525	°C	127
8	Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	78

*All the mechanical properties are tested on injection molded Test Specimen, prepared in accordance with ASTM D4101

Processing Guidelines:

- Barrel Temperature : 190 - 220°C
- Mold Temperature : 20 - 30°C

Storage & Handling:

Bags should be stored in dry & dust free environment at temperature below 50°C and Prevent from direct exposure to sunlight & heat to avoid quality deterioration.

This grade meets the requirements of IS 7328:2020 - Specification for Polyethylene Material for Moulding and Extrusion.

Regulatory Requirements:

M0252S to be manufactured complying the requirements specified in IS 10146 on "Specification for Polyethylene for its safe in contact with Foodstuff, Pharmaceutical & Drinking water". Furthermore, the Additives added in this grade formulation compiles to the "Positive list of constituents for Polypropylene, Polyethylene and their Copolymers for its safe use in contact with Foodstuffs & Pharmaceuticals" as laid down under IS 16738:2018. In general, the additives & constituents used in the grade are in line with requirement laid down under FDA: CFR Title 21,177.1520, Olefin Polymers.

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HPCL-Mittal Energy Limited (HMEL), The Rise, Plot No.17B & 17C, Block – FC, Sector-16A, Noida – 201301 (U.P), India. Tel: 0120-4634500. Corporate Site: www.hmel.in