

## Provisional Technical Datasheet

### M0255D Polysure HDPE

### Continuous Compression Molding

#### Product Characteristics:

Polysure M0255D is a 1-Hexene co-monomer based Bimodal high molecular weight high density Polyethylene, produced by Advanced Dual Loop Slurry MarTECH™ technology, for continuous compression molding and injection molding process. M0255D offers exceptional processability, combining good organoleptic properties and with a controlled torque level due to the incorporation of slip additives.

#### Recommended Applications:

Caps and closures for Carbonated Soft Drinks (CSD), Tea, Juices and Industrial articles required with high ESCR

#### Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	1.5
2	Density (23°C)	ASTM D1505	g/cc	0.955
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	28
4	Tensile Elongation at Break, Type IV Specimen		%	800
5	Flexural Modulus (2% Secant)	ASTM D790B	MPa	900
6	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	150
7	Vicat Softening Point (10N)	ASTM D1525	°C	125
8	Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	72
9	ESCR (F <sub>50</sub> ), 10% Igepal	ASTM D1693B	Hour	400

\* All the mechanical properties are determined on Compression Molded Test Specimen, prepared in accordance with ASTM D4703

#### Processing Guidelines:

- Barrel Temperature : 165 - 180°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:

M0255D 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 requirements laid down under FDA: CFR Title 21,177.1520, Olefin Polymers.

Updated as of August 2025