Provisional Technical Datasheet

M1855D Polysure HDPE — Injection Molding

Product Characteristics:
Polysure M1855D is 1-Hexene comonomer based High Density Polyethylene, produced by Advanced Dual Loop Slurry MarTECH™ technology, suitable for Injection Molding process. M1855D resin offers superior flow ensuring smooth processing with low cycle time, low warpage and excellent stiffness with dimensional stability.

Recommended Applications:
Houseware & General-Purpose items, Food Containers, TWIM

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	18
2	Density (23°C)	ASTM D1505	g/cc	0.955
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	29
4	Tensile Elongation at Break, Type IV Specimen		%	250
5	Flexural Modulus (1% Secant)	ASTM D790A	MPa	1000
6	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	27
7	Vicat Softening Point (10N)	ASTM D1525	°C	124
8	Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	75

**All the mechanical properties are tested on Injection Molded Test Specimen*

Processing Guidelines:

- Barrel Temperature : 190 - 240°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.

Regulatory Requirements:
M1855D to be manufactured complying the requirements specified in IS 10146 on “Specification for Polyethylene for its safe use 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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