

## Provisional Technical Datasheet

# M3050S Polysure HDPE

## Injection Molding

### Product Characteristics:

Polysure M3050S is 1-butene comonomer based High Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology, suitable for Injection Molding & Compounding processes. M3050S resin offers smooth processing with low cycle time, low warpage, superior aesthetics and excellent filler dispersibility

### Recommended Applications:

Houseware items, Food Containers, TWIM, Filler & Color Masterbatches

### Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190oC & 2.16 kg)	ASTM D1238	g/10 min	30
2	Density (23°C)	ASTM D1505	g/cc	0.950
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	22
4	Tensile Elongation at Break, Type IV Specimen		%	300
5	Flexural Modulus (1% Secant)	ASTM D790A	MPa	850
6	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	25
7	Vicat Softening Point (10N)	ASTM D1525	°C	126
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.

### Regulatory Requirements:

M3050S 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.

Updated as of May 2021

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HPCL-Mittal Energy Limited (HMEL), INOX Tower, Plot No.17, Sector-16A, Noida – 201301 (U.P), India. Tel: 0120-4634500. Corporate Site: [www.hmel.in](http://www.hmel.in)