HMEL

HMEL POLYSURE

Technical Datasheet

F0050D Polysure HDPE — HM Film

Product Characteristics:

Polysure F0050D is a 1-Hexene co-monomer based Bimodal High Molecular Weight High Density Polyethylene, produced by Advanced Dual Loop Slurry MarTECH™ technology, suitable for Blown Film Extrusion process. F0050D resin comes with a combination of excellent processability, good bubble stability, superb mechanical properties. Films produced with F0050D boasts of excellent toughness and durability.

Recommended Applications:

Heavy duty films for Industrial liners, Merchandise bags, Trash bags, General purpose shopping bags, Carry bag for grocery, Food packaging

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
Resin Properties				
1	Melt Flow Index (190°C & 5 kg)	ASTM D1238	g/10 min	0.28
2	Melt Flow Index (190°C & 21.6 kg)		g/10 min	8
3	Density (23°C)	ASTM D1505	g/cc	0.950
Film Properties*				
1	Tensile Strength at Yield (MD/TD)	ASTM D882 (50 mm / min)	MPa	26 / 25
2	Tensile Strength at Break (MD/TD)		MPa	60 / 55
3	Tensile Elongation at Break (MD/TD)		%	370 / 650
4	Elmendorf Tear Strength (MD/TD)	ASTM D1922	g/micron	0.8 / 22
5	Dart Impact Strength	ASTM D1709A	g/micron	8

**The film properties have been measured on 20 µm thick films (Blow-up ratio: 4, Die Gap: 1 mm))*

Processing Guidelines:

- Barrel Temperature : 180 - 230°C
- Die Temperature : 200 - 220°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:

F0050D 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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