

Technical Datasheet

F0220LM Polysure Metallocene LLDPE

Blown Film

Product Characteristics:

Polysure F0220LM is a 1-hexene comonomer based Linear Low-Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology, using Metallocene Catalyst and primarily suitable for Multilayer Blown Film Extrusion Process. This grade contains Slip & Anti-block additives. Film produced with F0220LM offers smooth processing & superior drawdown characteristics. The film will also have outstanding dart impact, puncture resistance, tear resistance, heat seal strength and optical properties.

Recommended Applications:

Multilayer Packaging Film, FFS Packaging Film, Bag in Box, Barrier Food Packaging, Freezer Film, Premium Trash Bag, Overwrap Film, Agricultural Film, Stand Up Pouches etc.

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
Resin Properties:				
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	2.0
2	Density (23°C)	ASTM D1505	g/cc	0.920
Film Properties*:				
1	Tensile Strength at Yield (MD/TD)	ASTM D882 (500 mm / min)	MPa	9.5 / 9.5
2	Tensile Strength at Break (MD/TD)		MPa	50 / 42
3	Tensile Elongation at Break (MD/TD)		%	560 / 620
4	Elmendorf Tear Strength (MD/TD)	ASTM D1922	g/micron	13 / 19
5	Dart Impact Strength	ASTM D1709A	g/micron	27
6	Haze	ASTM D1003	%	14
7	Gloss	ASTM D2457, 45°	GU	50
8	Puncture Energy	HMEL Method	J	1.9

* The film properties have been measured on 25.4 µm (1.0 mil) thick films (Blow-up ratio: 2.5, Die Gap: 1.8 mm)

Processing Guidelines:

- Barrel Temperature : 170 - 215°C
- Blow Up Ratio : 2 - 3
- Die Gap : 1.8 - 2.5 mm

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:

F0220LM 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.

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