Provisional Technical Datasheet

B0158S Polysure HDPE — General Purpose Blow Molding

Product Characteristics:

Polysure B0158S is 1-hexene comonomer based bimodal High-Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology, suitable for Blow Molding process. B0158S resin offers exceptional processability, very good melt strength, excellent die swell properties.

Recommended Applications:

General purpose blow molded containers up to 20 lit for Lube oils, Edible oils, Pharmaceutical products, Cosmetic packaging, Jerry cans, Detergent containers. This grade can also be used to make Double Walled Corrugated Pipes.

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	0.35
2	Density (23°C)	ASTM D1505	g/cc	0.955
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	27
4	Tensile Elongation at Break, Type IV Specimen		%	600
5	Flexural Modulus (1% Secant)	ASTM D790A	MPa	1000
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	75
9	Hardness	ASTM D2240	Shore D	63
10	ESCR (F_{50}), 100% Igepal	ASTM D1693B	Hour	35

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

Processing Guidelines:

- Barrel Temperature : 170 - 200°C
- Die Temperature : 150 - 190°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:

B0158S 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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