

Technical Datasheet

B0045DU Polysure HDPE

IBC & Fuel Tank

Product Characteristics:

Polysure B0045DU is a 1-Hexene co-monomer based high molecular weight High Density Polyethylene, produced by Advanced Dual Loop Slurry MarTECH™ technology, suitable for Blow Molding process. B0045DU offers a unique combination of excellent processability & high melt strength. Containers made from B0045DU has outstanding ESCR properties along with superior stackability, impact and chemical resistance. This UV stabilized grade is specifically designed for long term outdoor exposure during service life.

Recommended Applications:

Intermediate bulk containers (IBC), Agricultural containers, Automotive Fuel Tanks

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190°C & 21.6 kg)	ASTM D1238	g/10 min	6.2
2	Density (23°C)	ASTM D1505	g/cc	0.945
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	24
4	Flexural Modulus (1% Secant)	ASTM D790B	MPa	1000
5	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	550
6	Vicat Softening Point (10N)	ASTM D1525	°C	126
7	Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	70
8	Hardness	ASTM D2240	Shore D	61
9	ESCR (F50), 10% Igepal	ASTM D1693B	Hour	>1000

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

Processing Guidelines:

- Barrel Temperature : 180 - 210°C
- Die Temperature : 160 - 200°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:

B0045DU 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 July 2025