

TECHNICAL DATA SHEET
B5500

B5500 is a HMHDPE Blow Molding Grade produced by Mitsui CX Process

B5500 combines exceptional processability with high rigidity, excellent mechanical properties and impact resistance

B5500 is recommended for medium bulk containers (~ 120 liter) for Chemicals, Detergent, Lube oils

B5500 is also suitable for the manufacture of blow molded water tanks up to 1000 liters. Adequate UV Stabilizer needs to be added externally for usage in outdoor water tank applications

BIS Designation Code: IS 7328-3B-BB-FXTA

Property	Test Method	Unit	Nominal Value
Melt Flow Index (2.16 kg, 190°C)	ASTM D1238, IS 13360 (Part 4/Sec 1)	g/10 min	0.06
Melt Flow Index (5 kg, 190°C)		g/10 min	0.35
Melt Flow Index (21.6 kg, 190°C)		g/10 min	8
Density (23°C, Annealed)	ASTM D1505, IS 13360 (Part 3/Sec 11)	g/cm ³	0.952
Density (23°C, Annealed)	JIS MCI HZ-F-109	g/cm ³	0.956
Physical Property			
Tensile Strength at Yield	ASTM D638 (50 mm/min)	MPa	27
Elongation at Yield		%	9
Tensile Strength at Break		MPa	40
Elongation at Break		%	900
Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	500
Flexural Modulus	ASTM D790A	MPa	1000
Hardness	ASTM D2240	Shore D	64
ESCR (F ₅₀ , 10% Igepal soln. v/v)	ASTM D1693B	Hr	>1000
Vicat Softening Point (10 N)	ASTM D1525	°C	127
Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	63
DSC Melting Temperature	ASTM D3418	°C	133

Suggested Processing Conditions	
Barrel Temperature	200/210/215/210 °C
Die Temperature	200 – 210 °C
Parison Temperature	190 – 210 °C
Cooling Water for Mold	20 – 25 °C

*Halene H is the registered trademark of High-Density Polyethylene of Haldia Petrochemicals Limited

Mechanical Properties are on specimens from Compression Molded sheet prepared in accordance with ASTM D4703

This grade meets the requirements of:

IS 7328:2020 Specification for Polyethylene Material for Moulding and Extrusion

IS 16738:2018 Positive List of Constituents for Polypropylene, Polyethylene and their Copolymers for its Safe Use in Contact with Foodstuffs and Pharmaceuticals

IS 10146 for use in contact with foodstuffs, pharmaceuticals and drinking water

This product is not recommended for manufacturing of Single Use Plastic (SUP) items listed under Plastics Waste Management (PWM) Rule 2016 and its latest amendment

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