

TECHNICAL DATA SHEET

M5600S

M5600S is a broad molecular weight distribution HDPE Grade produced by Mitsui CX Process

M5600S is suited for both injection & compression molded caps & closure application for Carbonated Soft Drink (CSD), water, juice & beverages

The precise control of morphology & broader MWD during polymerization confers superior processability, good organoleptic, high environmental stress crack resistance & improved performance properties. This grade contains slip agent for better torque release.

BIS Designation Code: IS 7328-3B-CBF-FXDA

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	0.7
Melt Flow Index (5 kg, 190°C)		g/10 min	2.7
Density (23°C, Annealed)	ASTM D1505, IS 13360 (Part 3/Sec 11)	g/cm ³	0.954
Density (23°C, Annealed)	JIS MCI HZ-F-109	g/cm ³	0.958
Physical Property			
Tensile Strength at Yield	ASTM D638 (50 mm/min)	MPa	26
Elongation at Yield		%	9
Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	75
Flexural Modulus	ASTM D790A	MPa	950
ESCR (F ₅₀ , 10% Igepal soln. v/v)	ASTM D1693B	Hr	750
Vicat Softening Point (10 N)	ASTM D1525	°C	125
Heat Deflection Temperature (0.455 MPa)	ASTM D648	°C	68
DSC Melting Temperature	ASTM D3418	°C	131
Suggested Processing Conditions			
Barrel Temperature	160 – 190 °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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