

TECHNICAL DATA SHEET

F5400

F5400 is a HMHDPE film grade produced by Mitsui CX Process

F5400 combines excellent processability and high mechanical strength

F5400 is recommended for General Purpose Film as well as very thin Reinforced Bag Applications

BIS Designation Code: IS 7328-3B-FB-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	0.09
Melt Flow Index (5 kg, 190°C)		g/10 min	0.50
Melt Flow Index (21.6 kg, 190°C)		g/10 min	14
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	0.954
Physical Property			
Tensile Strength at Yield	ASTM D638 (50 mm/min)	MPa	28
Tensile Strength at Break		MPa	40
Elongation at Break		%	800
Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	180
Flexural Modulus	ASTM D790A	MPa	1150
Hardness	ASTM D2240	Shore D	65
ESCR (F ₅₀ , 10% Igepal soln. v/v)	ASTM D1693B	Hr	>500
Dart Impact Strength**	ASTM D1709A	g	80
Vicat Softening Point (10 N)	ASTM D1525	°C	124
DSC Melting Temperature	ASTM D3418	°C	131
Suggested Processing Conditions			
Barrel Temperature	180 – 220 °C		
BUR	4 – 6		

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

Mechanical Properties are tested on specimens from Compression Molded sheets

**Dart Impact Strength tested on 20 micron blown film made with BUR 4.0



Halene – H*

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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