

LG PMMA IH830

Technical DataSheet | Supplied by LG Chem

LG PMMA IH830 is a general purpose polymethyl methacrylate acrylic grade by LG Chem. Exhibits superior transparency, excellent weather resistance, superior scratch resistance and tinting ability. LG PMMA IH830 is suitable for processing by injection molding. Possible applications include automobile, optical products, electrical and electronic instruments. Complies with RoHS, automotive specification SAE J576 and UL 94 HB flame rating.

Product Type	PMMA (Acrylic) > PMMA
Product Status	COMMERCIAL
Geographical Availability	Asia / Pacific, Central and Eastern Europe, North America, South and Central America, Western Europe
Applications/ Recommended for	Electronics / Computers Optics Automotive Electrical markets Injection molding - thermoplastics
Labels/Agency Rating	RoHS SAE J576 UL 94 HB rated
Key Features	General purpose Scratch Resistance, High Transparency, High Weather Resistance, Good

LG PMMA IH830 Properties

Physical	Value & Unit	Test Condition	Test Method
Melt Mass-Flow Rate (MFR or MFI = Melt Flow Index or MI = Melt Index)	2.3 g/10 min	230°C, 3.8 kg	ASTM D1238
Linear Mold Shrinkage, Flow	0.20 - 0.60 %		ASTM D955
Water Absorption	0.30 %	24 hr	ASTM D570

Density	1.18 g/cm ³	ASTM D792
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Mechanical	Value & Unit	Test Condition	Test Method
Tensile Strength, Yield	70.6 MPa		ASTM D638
Flexural Modulus	3410 MPa		ASTM D790
Elongation at Yield	13 %		ASTM D638
Impact Strength, Notched Charpy	1.4 kJ/m ²		ISO 179/1eA
Impact Strength, Unnotched Charpy	15 kJ/m ²		ISO 179/1eA
Impact Strength, Notched Izod	1.50 kJ/m ²		ASTM D256
Flexural Yield Strength	135 MPa		ASTM D790
Hardness, Rockwell M	98		ASTM D785

Thermal	Value & Unit	Test Condition	Test Method
Vicat Softening Temperature	114 °C	Loading 1 (10N)	ASTM D1525
Heat Deflection Temperature (HDT), Unannealed	101 °C	At 1.8 MPa (264 psi)	ASTM D648
CTE, Linear, Parallel to Flow	6.0E-5 cm/cm-°C		ASTM D696

Electrical	Value & Unit	Test Condition	Test Method
Dielectric Strength	20 kV/mm	4000 V/sec	ASTM D149
Dielectric Constant	3.10	60 Hz	ASTM D150
Dissipation Factor	0.050	60 Hz	ASTM D150
Volume Resistivity	> 1.0E+15 ohm-cm		ASTM D257

Flammability	Value & Unit	Test Condition	Test Method
Flame Rating, UL 94	HB		UL 94

Optical	Value & Unit	Test Condition	Test Method
Transmission, Visible	92.0 %	3200 μm	ASTM D1003
Haze	< 0.10 %	3200 μm	ASTM D1003
Refractive Index	1.490		ASTM D542

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