

LG PMMA IG840

Polymethyl Methacrylate Acrylic

LG MMA Corp.

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Technical Data

Product Description

General purpose grade of PMMA is largely divided into injection and extrusion purpose. Various pellet type of grades fit for the properties of customer products are available.

General

Material Status	• Commercial: Active
Literature ¹	• Processing - LG PMMA (English) • Technical Datasheet (English)
UL Yellow Card ²	• E67171-248632 • E194507-227601
Search for UL Yellow Card	• LG MMA Corp.
Availability	• Asia Pacific • Europe • Latin America • North America
Features	• General Purpose
Uses	• General Purpose
RoHS Compliance	• RoHS Compliant
UL File Number	• E194507
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity	1.18 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	5.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.20 to 0.50 %	ASTM D955
Water Absorption (24 hr)	0.30 %	ASTM D570
Mechanical	Nominal Value Unit	Test Method
Tensile Strength (Yield)	66.7 MPa	ASTM D638
Tensile Elongation (Yield)	8.0 %	ASTM D638
Flexural Modulus	3300 MPa	ASTM D790
Flexural Strength (Yield)	133 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact	15 J/m	ASTM D256
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (M-Scale)	96	ASTM D785
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	89.0 °C	ASTM D648
Vicat Softening Temperature	109 °C	ASTM D1525 ⁴
CLTE - Flow	6.0E-5 cm/cm/°C	ASTM D696
RTI Elec (1.5 mm)	50.0 °C	UL 746
RTI Imp (1.5 mm)	50.0 °C	UL 746
RTI Str (1.5 mm)	50.0 °C	UL 746
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
--	HB	
1.5 mm, All	HB	
Optical	Nominal Value Unit	Test Method
Refractive Index	1.490	ASTM D542
Transmittance (3000 µm)	92.0 %	ASTM D1003
Haze (3000 µm)	0.500 %	ASTM D1003
Yellowness Index (3.00 mm)	0.40 YI	ASTM D1925



Injection	Nominal Value Unit
Drying Temperature	70 to 80 °C
Drying Time	4.0 to 6.0 hr
Suggested Max Moisture	0.10 %
Rear Temperature	210 to 250 °C
Middle Temperature	210 to 250 °C
Front Temperature	210 to 250 °C
Mold Temperature	70 to 80 °C
Injection Pressure	78.5 to 147 MPa

Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.
- ³ Typical properties: these are not to be construed as specifications.
- ⁴ Loading 1 (10 N)

