

Acrypet® MD

Polymethyl Methacrylate Acrylic

Mitsubishi Rayon America Inc.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good Chemical Resistance • Good Weather Resistance	• High Clarity • High Hardness	• Pleasing Surface Appearance
Uses	• Appliances • Automotive Applications	• Electrical/Electronic Applications • Optical Applications	
Forms	• Pellets		

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.19 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	6.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.20 to 0.60 %	ASTM D955
Water Absorption (24 hr)	0.30 %	ASTM D570

Mechanical	Nominal Value Unit	Test Method
Tensile Strength ²	68.9 MPa	ASTM D638
Tensile Elongation ² (Break)	5.0 %	ASTM D638
Flexural Modulus (6.35 mm)	3040 MPa	ASTM D790
Flexural Strength (6.35 mm)	103 MPa	ASTM D790
Compressive Strength	103 MPa	ASTM D695

Impact	Nominal Value Unit	Test Method
Notched Izod Impact (6.35 mm)	16 J/m	ASTM D256

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (M-Scale)	92	ASTM D785

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	89.0 °C	ASTM D648
Vicat Softening Temperature	104 °C	ASTM D1525
CLTE - Flow	0.000060 cm/cm/°C	ASTM D696

Optical	Nominal Value Unit	Test Method
Refractive Index	1.490	ASTM D542
Transmittance (3200 µm)	93.0 %	ASTM D1003

Additional Information	
Surface Resistivity, JIS K6911: >10 ¹⁶ ohm	
Volume Resistivity, JIS K6911: >10 ¹⁵ ohm-cm	
Dielectric Breakdown Strength: 20 kV/mm	
Dielectric Constant, 60Hz: 3.7	
Dielectric Loss Tangent, 60Hz: 0.05	
Arc Resistance, JIS K6911: No Trace	

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type I