

Acryrex® CM-211 PMMA

Category : Polymer , Thermoplastic , Acrylic (PMMA) , Acrylic, General Purpose, Molded

Material Notes:

Features: Good Weather Resistance High Clarity High Flow High Gloss High Heat Resistance High

Viscosity Uses: Containers Cosmetics Household Goods Knobs RoHS Compliant Appearance: Clear/Transparent Forms: Pellets Processing

Method: Extrusion and Injection Molding

Physical Properties	Metric	English	Comments
Density	0.700 g/cc	0.0253 lb/in ³	Apparent; ASTM D1182
	1.19 g/cc	0.0430 lb/in ³	ASTM D792
Water Absorption Linear	0.30 %	0.30 %	Equilibrium; ASTM D570
Mold Shrinkage, Flow	0.0020 - 0.0060 cm/cm	0.0020 - 0.0060 in/in	ASTM D955
Melt Flow	16 g/10 min @Load 3.80 kg, Temperature 230 °C	16 g/10 min @Load 8.38 lb, Temperature 446 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	84	84	6 mm/min; ASTM D785
	@Thickness 6.35mm	@Thickness 0.250 in	
Tensile Strength, Yield	63.4 MPa	9200 psi	6 mm/min; ASTM D638
	@Thickness 3.18 mm	@Thickness 0.125 in	
Elongation at Break	5.0 %	5.0 %	2.8 mm/min; ASTM D638
	@Thickness 3.18 mm	@Thickness 0.125 in	
Flexural Strength	91.0 MPa	13200 psi	ASTM D790
	@Thickness 6.35 mm	@Thickness 0.250 in	
Izod Impact, Notched	0.200 J/cm	0.375 ft-lb/in	ASTM D256
	@Thickness 6.35 mm	@Thickness 0.250 in	
Impact	2.00	2.00	Impact Flexural Test Notched (KJ/m ²)
	18.0	18.0	Impact Flexural Test Unnotched (KJ/m ²)

Optical Properties	Metric	E n g l i s h	Comments
Refractive Index	1.49	1.49	ASTM D542
Transmission, Visible	92 % @Thickness 80.8 mm	92 % @Thickness 3.18 in	ASTM D1003

Electrical Properties	Metric	E n g l i s h	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTMD257
Dielectric Constant	3.7	3.7	ASTMD150
Dielectric Strength	0.787 kV/mm	20.0 kV/in	ASTMD149
Dissipation Factor	0.19	0.19	ASTMD150

Processing Properties	Metric	E n g l i s h	Comments
Rear Barrel Temperature	180 - 190 °C	356 - 374 °F	
Middle Barrel Temperature	195 - 215 °C	383 - 419 °F	
Front Barrel Temperature	190 - 210 °C	374 - 410 °F	
Mold Temperature	30.0 - 50.0 °C	86.0 - 122 °F	
Drying Temperature	70.0 - 75.0 °C @Time 14400 sec	158 - 167 °F @Time4.00 hour	