

Altuglas® VM 100

Polymethyl Methacrylate Acrylic

Altuglas International of Arkema Inc.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• Europe
Forms	• Granules	
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)	• Specific Volume vs Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)
Physical	Nominal Value Unit	Test Method
Density	1.18 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	15 g/10 min	ISO 1133
Molding Shrinkage - Flow	0.20 to 0.60 %	ASTM D955
Water Absorption (Equilibrium, 23°C, 50% RH)	0.30 %	ISO 62
Mechanical	Nominal Value Unit	Test Method
Tensile Stress (Yield, 23°C)	65.0 MPa	ISO 527-2
Tensile Strain (Break, 23°C)	5.0 %	ISO 527-2
Flexural Modulus (23°C)	3100 MPa	ISO 178
Flexural Strength (23°C)	97.0 MPa	ISO 178
Compressive Stress (23°C)	97.0 MPa	ISO 604
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	2.0 kJ/m ²	ISO 179/2C
Charpy Unnotched Impact Strength (23°C)	11 kJ/m ²	ISO 179/2U
Notched Izod Impact Strength (23°C)	1.8 kJ/m ²	ISO 180/1A
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (M-Scale)	89	ASTM D785
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	82.0 °C	ISO 75-2/B
1.8 MPa, Unannealed	77.0 °C	ISO 75-2/A
Vicat Softening Temperature	90.0 °C	ISO 306/B
CLTE - Flow (-30 to 23°C)	0.000070 cm/cm/°C	ASTM D696
Specific Heat	2090 J/kg/°C	
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	> 1.0E+14 ohm	ASTM D257
Volume Resistivity	> 1.0E+15 ohm·cm	ASTM D257
Dielectric Strength	20 kV/mm	ASTM D149
Dielectric Constant (60 Hz)	3.70	ASTM D150
Dissipation Factor (1 MHz)	0.040	ASTM D150
Flammability	Nominal Value Unit	Test Method
Flame Rating - UL	HB	UL 94
Optical	Nominal Value Unit	Test Method
Refractive Index ²	1.490	ISO 489
Transmittance	92.0 %	ASTM D1003
Haze	0.50 %	ASTM D1003
Injection	Nominal Value Unit	
Drying Temperature	80.0 °C	
Drying Time	4.0 hr	
Processing (Melt) Temp	200 °C	
Mold Temperature	50.0 to 60.0 °C	