Altuglas® MI-4T

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)	• Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Density	1.18	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.0	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.20 to 0.60	%	ASTM D955
Water Absorption (Equilibrium, 23°C, 50% RH)	0.32	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (Yield, 23°C)	59.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	20	%	ISO 527-2
Flexural Modulus (23°C)	2800	MPa	ISO 178
Flexural Strength (23°C)	92.0	MPa	ISO 178
Compressive Stress (23°C)	91.0	MPa	ISO 604
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	2.5	kJ/m²	ISO 179/2C
Charpy Unnotched Impact Strength (23°C)	20	kJ/m²	ISO 179/2U
Notched Izod Impact Strength (23°C)	2.2	kJ/m²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	82		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	102	°C	ISO 75-2/B
1.8 MPa, Unannealed	98.0	°C	ISO 75-2/A
Vicat Softening Temperature	106	°C	ISO 306/B
CLTE - Flow (-30 to 23°C)	0.000075	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	19	kV/mm	ASTM D149
Dielectric Constant (60 Hz)	3.80		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	1.0	%	ASTM D1003

Injection	Nominal Value	Unit
Drying Temperature	85.0	°C
Drying Time	4.0	hr
Processing (Melt) Temp	230 to 240	°C
Mold Temperature	75.0 to 85.0	°C

Notes

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

[2] Method B