



Altuglas® DRT

Altuglas International of Arkema Inc. - Polymethyl Methacrylate Acrylic

Monday, July 28, 2008

General Information

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	
Additive	• Antiblock	• Lubricant	
Features	• Antiblocking	• Good UV Resistance	• Lubricated
	• Good Impact Resistance	• High Heat Resistance	
Appearance	• Clear/Transparent		
Forms	• Granules		
Processing Method	• Blow Molding	• Injection Molding	• Sheet Extrusion
	• Extrusion	• Profile Extrusion	• Thermoforming
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Specific Volume vs Temperature (ISO 11403-2)	
	• Secant Modulus vs. Strain (ISO 11403-1)	• Viscosity vs. Shear Rate (ISO 11403-2)	

ASTM and ISO Properties ¹

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.0415 lb/in ³	1150 kg/m ³	ISO 1183 ²
Melt volume-flow rate (230°C/3.8 kg)	0.0458 in ³ /10min	0.750 cm ³ /10min	ISO 1133 ²
Water Absorption (Saturation)	2.0 %	2.0 %	ISO 62 ²
Water Absorption (Equilibrium)	0.36 %	0.36 %	ISO 62 ²
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile modulus	247000 psi	1700 MPa	ISO 527-2 ²
Tensile Stress (Yield)	6530 psi	45.0 MPa	ISO 527-2 ²
Tensile Strain (Yield)	5.0 %	5.0 %	ISO 527-2 ²
Nominal strain at break	40.0 %	40.0 %	ISO 527-2 ²
Tensile Creep Modulus (1 hr)	203000 psi	1400 MPa	ISO 899-1 ²
Tensile Creep Modulus (1000 hr)	145000 psi	1000 MPa	ISO 899-1 ²
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy notched impact strength			ISO 179/1eA ²
73 °F (23 °C)	3.33 ft-lb/in ²	7.00 kJ/m ²	
Charpy impact strength (73 °F (23 °C))	33.3 ft-lb/in ²	70.0 kJ/m ²	ISO 179/1eU ²
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2 ²
66 psi (0.45 MPa)	199 °F	93.0 °C	
Deflection Temperature Under Load			ISO 75-2 ²
264 psi (1.8 MPa)	190 °F	88.0 °C	
Vicat Softening Temperature			ISO 306 ²
50°C/h, B (50N)	212 °F	100 °C	
CLTE (Flow)	0.000056 in/in/°F	0.000100 cm/cm/°C	ISO 11359-2 ²

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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface resistivity	1.0E+14 ohms	1.0E+14 ohms	IEC 60093 ²
Volume resistivity	3.9E+14 ohm-in	1.0E+13 ohm·m	IEC 60093 ²
Relative Permittivity (100 Hz)	4.00	4.00	IEC 60250 ²
Relative Permittivity (1 MHz)	3.00	3.00	IEC 60250 ²
Dissipation Factor (100 Hz)	0.050	0.050	IEC 60250 ²
Dissipation Factor (1 MHz)	0.040	0.040	IEC 60250 ²
Comparative tracking index	600	600	IEC 60112 ²
Electric strength	380 V/mil	15 kV/mm	IEC 60243-1 ²

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Behav. at 1.6mm nom. thickn. 0.06 in (1.60 mm)	HB	HB	ISO 1210 ²

Notes

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

² Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.