

Diakon® ST45G8

Polymethyl Methacrylate Acrylic

Lucite International Inc.

Message:

Diakon® ST45G8 is a Polymethyl Methacrylate Acrylic material. It is available in Europe for injection molding.

Important attributes of Diakon® ST45G8 are:

Flame Rated

Good Toughness

General Information			
Features	Good Toughness		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)	1.3	g/10 min	ISO 1133
Molding Shrinkage	0.40 to 0.80	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.36	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	35		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	45.0	MPa	ISO 527-2
Tensile Strain (Yield)	35	%	ISO 527-2
Flexural Modulus	1700	MPa	ISO 178
Flexural Stress	60.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	8.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	78	kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength	7.5	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	92.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	108	°C	ISO 306/A
--	93.0	°C	ISO 306/B
CLTE - Flow	1.2E-4	cm/cm/°C	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Glow Wire Ignition Temperature	650	°C	IEC 60695-2-13
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ISO 489

Transmittance	90.0	%	ASTM D1003
Haze	3.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	3.0 to 4.0	hr	
Hopper Temperature	50.0 to 80.0	°C	
Rear Temperature	200 to 240	°C	
Middle Temperature	210 to 260	°C	
Front Temperature	220 to 280	°C	
Nozzle Temperature	220 to 270	°C	
Mold Temperature	40.0 to 70.0	°C	

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