

Diakon® Frost 902 51

Polymethyl Methacrylate Acrylic

Lucite International Inc.

Message:

Diakon® Frost 902 51 is a polymethyl methacrylate-acrylic material. This product is available in Europe and is processed by extrusion. Diakon® The main characteristics of Frost 902 51 are: flame retardant/rated flame.

General Information			
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)	5.5	g/10 min	ISO 1133
Molding Shrinkage	0.40 - 0.70	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.30	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	88		ISO 2039-2
Ball Indentation Hardness (H 961/30)	180	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	80.0	MPa	ISO 527-2
Tensile Strain (Yield)	5.0	%	ISO 527-2
Flexural Modulus	3100	MPa	ISO 178
Flexural Stress	98.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	1.7	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	11	kJ/m ²	ISO 179/1eU
Notched Izod Impact	1.3	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	100	°C	ISO 75-2/B
1.8 MPa, not annealed	97.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	108	°C	ISO 306/A
--	102	°C	ISO 306/B
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
Transmittance	74.0	%	ASTM D1003
Haze	66	%	ASTM D1003

Extrusion	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	3.0 - 4.0	hr
Hopper Temperature	50.0 - 80.0	°C
Cylinder Zone 1 Temp.	160 - 240	°C
Cylinder Zone 2 Temp.	180 - 250	°C
Cylinder Zone 3 Temp.	200 - 250	°C
Cylinder Zone 4 Temp.	220 - 260	°C
Adapter Temperature	210 - 270	°C
Die Temperature	210 - 270	°C
Extrusion instructions		

Vent Zone: 220 to 270°CZone 6: 220 to 270°CZone 7: 210 to 270°CZone 8: 210 to 270°C

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