

Diakon® CMH454

Polymethyl Methacrylate Acrylic

Lucite International Inc.

Message:

Diakon® CMH454 is a polymethyl methacrylate-acrylic material. This product is available in Europe and is processed by extrusion or injection molding.

Diakon® The main characteristics of CMH454 are: flame retardant/rated flame.

Diakon® The typical application areas of CMH454 are: thin plates

General Information			
UL YellowCard	E108947-218759		
Uses	Sheet		
Forms	Particles		
Processing Method	Extrusion		
	Injection molding		

Physical	Nominal Value	Unit	Test Method
Density	1.18	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)	0.80	g/10 min	ISO 1133
Water Absorption (Equilibrium, 23°C, 50% RH)	0.30	%	ISO 62

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	99		ISO 2039-2
Ball Indentation Hardness	190	MPa	ISO 2039-1

Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	85.0	MPa	ISO 527-2
Tensile Strain (Yield)	5.0	%	ISO 527-2
Flexural Modulus	3400	MPa	ISO 178
Flexural Stress	120	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	2.2	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	26	kJ/m ²	ISO 179/1eU
Notched Izod Impact	2.2	kJ/m ²	ISO 180
Instrumented Dart Impact	0.600	J	ASTM D3763, ISO 6603-2

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	106	°C	ISO 75-2/B
1.8 MPa, not annealed	102	°C	ISO 75-2/A
Vicat Softening Temperature			
--	117	°C	ISO 306/A
--	108	°C	ISO 306/B
CLTE - Flow	7.1E-5	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		ASTM D542, ISO 489
Transmittance	92.0	%	ASTM D1003
Haze	0.40	%	ASTM D1003
Additional Information			

Mold Shrinkage, H 961/30: .4 to .7%.Craze Resistance (isopropanol), Ineos cantilever test: >3600 sec to break.

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