Plexiglas® Optical POQ66

Polymethyl Methacrylate Acrylic

Evonik Industries AG

Message:

PLEXIGLAS® Optical POQ66 is an amorphous thermoplastic molding compound based on polymethylmethacrylate (PMMA). In addition to the familiar properties of PLEXIGLAS® molding compounds, such as excellent light transmission and brilliance, very good weather resistance, high mechanical strength, surface hardness and mar resistance, PLEXIGLAS® Optical POQ66 is distinguished by its guaranteed purity and clarity, high luminous efficiency in medium to long light paths, absolute colorlessness even in thick layers UL registration RTI90 by (fi) 746C. Application: PLEXIGLAS® Optical POQ66 is suitable for manufacturing extruded sheets to meet stringent optical requirements.

Examples:

Medium to large extruded light guide (Light Guide Panel) for display applications.

General Information			
UL YellowCard	E65495-100986378		
Features	Good Weather Resistance		
	High Clarity		
	High Hardness		
	High Strength		
	Light Stabilized		
Uses	Displays		
	Lighting Applications		
	Optical Applications		
Forms	Pellets		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/3.8			
kg)	2.30	cm³/10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3200	MPa	ISO 527-2/1
Tensile Stress (Break)	69.0	MPa	ISO 527-2/5
Tensile Strain (Break)	4.0	%	ISO 527-2/5
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	20	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	108	°C	ISO 11357-2

Vicat Softening Temperature	104	°C	ISO 306/B50
CLTE - Flow (0 to 50°C)	8.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Fire Rating	B2		DIN 4102
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ISO 489
Transmittance ¹	92.0	%	ISO 13468-2
Extrusion	Nominal Value	Unit	
Drying Temperature	< 94.0	°C	
Drying Time	2.0 to 3.0	hr	
Melt Temperature	220 to 260	°C	
Melt Temperature Die Temperature	220 to 260 220 to 260	°C °C	
		-	
Die Temperature		-	

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