

PLEXIGLAS® Optical POQ64

Product Profile:

PLEXIGLAS® Optical POQ64 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 POQ64 is distinguished by its

- guaranteed purity and clarity,
- very good flow properties,
- high luminous efficiency in medium to long light paths.

Application:

PLEXIGLAS® Optical POQ64 is excellently suited for the injection molding or injection-compression molding of technical components to meet stringent optical requirements.

Examples:

Small to medium-sized injection-molded or injection compression-molded lightguide panels for display applications, lightguides.

Processing:

PLEXIGLAS® Optical POQ64 can be processed on injection molding machines with conventional three-section screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Optical POQ64 is supplied as uniform pellets in 25kg polyethylene bags, other types of packaging on request.

Properties:

	Parameter	Unit	Standard	PLEXIGLAS® Optical POQ64
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	3300
Stress @ Break	5 mm/min	MPa	ISO 527	49
Strain @ Break	5 mm/min	%	ISO 527	1.8
Charpy Impact Strength	23°C	kJ/m ²	ISO 179/1eU	17
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	104
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	97
Coeff. of Linear Therm. Expansion	0 – 50°C	E-5 /°K	ISO 11359	8
Fire Rating			DIN 4102	B2
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm ³ /10min	ISO 1133	11
Optical Properties				
Luminous transmittance	d=3 mm			
	D65	%	ISO 13468-2	92
Refractive Index			ISO 489	1.49
Other Properties				
Density		g/cm ³	ISO 1183	1.19
Recommended Processing Conditions				
Predrying Temperature		°C		max. 90
Predrying Time in Desiccant-Type Drier		h		2 – 3
Melt Temperature		°C		220 – 240
Mold Temperature (Injection Molding)		°C		60 – 90

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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The Business Unit Performance Polymers of Evonik is a worldwide manufacturer of PMMA molding compounds sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian Continent and under the trademark ACRYLITE® in the Americas.

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Ref. No.: MC138-E v0160 Date: 2011-04-04