

Product Texts

Productprofil:

PLEXIGLAS® Optical POQ64 is an amorphous thermoplastic molding compound based on polymethyl methacrylate (PMMA).

In addition to the familiar properties of PLEXIGLAS® molding compounds, such as

- excellent light transmission and brilliance,
- 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,
- optimised mold release behavior,
- 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.

Example:

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 big-bags; other packaging on request.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	9	cm ³ /10min	ISO 1133
Temperature	230	°C	-
Load	3.8	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3300	MPa	ISO 527
^[C] Stress at break	65	MPa	ISO 527
^[C] Strain at break	3	%	ISO 527
^[C] Charpy impact strength, +23°C	20	kJ/m ²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			

PLEXIGLAS® Optical POQ64

PMMA

Röhm GmbH

^[C] Temp. of deflection under load, 1.80 MPa	97	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	104	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	65	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
ISO Data			
^[C] Luminous transmittance	92	%	ISO 13468-1, -2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Density	1190	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Processing conditions acc. ISO	8257	-	ISO-2
Injection Molding, mold temperature	64	°C	ISO 294
Injection Molding, injection velocity	195	mm/s	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	90	°C	-
Pre-drying - Time	2 - 3	h	-
Melt temperature	220 - 240	°C	-
Mold temperature	60 - 90	°C	-

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion, Compression Molding

Delivery form

Pellets

Special Characteristics

Light stabilized or stable to light, U.V. stabilized or stable to weather, Transparent

Features

Amorphous

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection molding**

PREPROCESSING

Predrying temperature: max. 90 °C

Predrying time in a desiccant-type drier: 2 - 3 h

PROCESSING

Melt temperature: 220 - 240°C

Mold temperature: 60 - 90°C

Profile extrusion

PREPROCESSING

Predrying temperature: max. 90 °C

Predrying time in a desiccant-type drier: 2 - 3 h

PROCESSING

Melt temperature: 220 - 240 °C

Die temperature: 220 - 240 °C

Sheet extrusion

PREPROCESSING

Predrying temperature: max. 90 °C

Predrying time in a desiccant-type drier: 2 - 3 h

PROCESSING

Melt temperature: 220 - 240 °C

Die temperature: 220 - 240 °C