

Product Texts

Productprofil:

PLEXIGLAS® Optical POQ66 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,
- 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.

Example:

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

Processing:

PLEXIGLAS® Optical POQ66 can be processed on extruders with conventional three-section screws for engineering themoplastics.

For manufacturing extruded lightguide panels, it is advisable to maintain processing temperatures at the lower end of the scale.

Physical Form / Packaging:

PLEXIGLAS® Optical POQ66 is supplied as uniform pellets in big bags. Other forms of packaging on request.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	2.3	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	3200	MPa	ISO 527
^[C] Stress at break	69	MPa	ISO 527
^[C] Strain at break	4	%	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 POQ66

PMMA

Röhm GmbH

[C] Glass transition temperature, 10°C/min	108	°C	ISO 11357-1/-2
[C] Vicat softening temperature, B	104	°C	ISO 306

[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

Characteristics**Processing**

Profile Extrusion, Sheet Extrusion, Other Extrusion

Features

Amorphous

Delivery form

Pellets

Regional Availability

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

Special Characteristics

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

Other text information**Profile extrusion**

PREPROCESSING

Predrying temperature: max. 94 °C

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

PROCESSING

Melt temperature: 220 - 260 °C

Die temperature: 220 - 260 °C

Sheet extrusion

PREPROCESSING

Predrying temperature: max. 94 °C

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

PROCESSING

Melt temperature: 220 - 260 °C

Die temperature: 220 - 260 °C