

Product Texts

Productprofil:

PLEXIGLAS® Optical POQ62 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 POQ62 is distinguished by its

- guaranteed purity and clarity,
- outstanding flow properties due to its low melt viscosity and its
- extremely accurate mold surface reproduction.

Application:

PLEXIGLAS® Optical POQ62 is particularly suitable for injection-compression molding and for injection-molding thin-walled parts with long flow paths. Further fields of application are two-component injection molding and special extrusion.

Example:

Manufacture of moldings with microstructured surfaces and optical structures.

Processing:

PLEXIGLAS® Optical POQ62 can be processed on injection molding machines and extruders with conventional three-section screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Optical POQ62 is supplied as uniform pellets in 500kg boxes with PE lining, other types of packaging on request.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	21	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	63	MPa	ISO 527
^[C] Strain at break	2.8	%	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			
^[C] Vicat softening temperature, B	97	°C	ISO 306

PLEXIGLAS® Optical POQ62

PMMA

Röhm GmbH

^[C] Coeff. of linear therm. expansion, parallel	80	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] Water absorption	1.7	%	Sim. to ISO 62
^[C] Humidity absorption	0.6	%	Sim. to ISO 62
^[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	57	°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	80	°C	-
Pre-drying - Time	2 - 3	h	-
Melt temperature	280 - 290	°C	-
Mold temperature	50 - 70	°C	-

Characteristics**Processing**

Injection Molding, Other Extrusion, Compression Molding

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**Injection molding**

PREPROCESSING

Predrying temperature: max. 80 °C

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

PROCESSING

Melt temperature: 280 - 290°C

Mold temperature: 50 - 70°C