

Product Texts
Productprofil:

PLEXIGLAS® Resist zk6BR is an amorphous, impact-modified thermoplastic molding compound (PMMA-I).

Typical properties of impact-modified PLEXIGLAS® molding compounds are:

- high weather resistance
- excellent transmission and clarity
- brilliant appearance
- the pleasant feel and sound of the moldings.

PLEXIGLAS® Resist zk6BR is characterized by the following special properties:

- maximum break resistance and impact strength,
- improved resistance to stress cracking
- balanced property profile
- AMECA listing.

Application:

Used for extruding and coextruding sheets and profiles as well as for injection molding

Example:

extruded and injection-molded luminaire covers, extruded hollow profiles, writing utensils such as stencils and fountain pens, appliance housings, coextruded profiles for window frames, gutters, downspouts, and housewares such as cutlery handles, bowls, cookie jars.

Processing:

PLEXIGLAS® Resist zk6BR can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Resist zk molding compounds are supplied as pellets of uniform size in 25kg polyethylene bags or in 500kg boxes with PE lining; other packaging on request.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	1.6	cm ³ /10min	ISO 1133
Temperature	230	°C	-
Load	3.8	kg	-
^[C] Density of melt	1040	kg/m ³	-
^[C] Thermal conductivity of melt	0.19	W/(m K)	-
^[C] Spec. heat capacity of melt	2440	J/(kg K)	-
^[C] Eff. thermal diffusivity	7.49E-8	m ² /s	-
^[C] Ejection temperature	75	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	1800	MPa	ISO 527
^[C] Yield stress	45	MPa	ISO 527

PLEXIGLAS® Resist zk6BR

PMMA-I

Röhm GmbH

[C] Yield strain	5	%	ISO 527
[C] Nominal strain at break	>50	%	ISO 527
[C] Tensile creep modulus, 1h	1400	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	900	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	80	kJ/m ²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	109	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	88	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	93	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	95	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	-
Yellow Card available	yes	-	-
[C] Oxygen index	17.5	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	3.7	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	2.9	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	500	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	300	E-4	IEC 62631-2-1
[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	1E13	Ohm	IEC 62631-3-2
[C] Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
ISO Data			
[C] Luminous transmittance	91	%	ISO 13468-1, -2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	1.9	%	Sim. to ISO 62
[C] Humidity absorption	0.5	%	Sim. to ISO 62
[C] Density	1160	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	255	°C	ISO 294
Injection Molding, mold temperature	50	°C	ISO 294
Injection Molding, injection velocity	195	mm/s	ISO 294

[C]: CAMPUS

Characteristics**Processing**

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Thermoforming

Features

Amorphous

Delivery form

Pellets

Chemical Resistance

Environmental Stress Crack Resistance

Additives

Release agent

Applications

Building Construction, Encapsulation

Special Characteristics

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

Regional Availability

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

Other text information**Injection molding**

PREPROCESSING

Predrying temperature: max. 85 °C

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

PROCESSING

Melt temperature: 220 - 260°C

Mold temperature: 50 - 70°C

Profile extrusion

PREPROCESSING

Predrying temperature: max. 85 °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. 85 °C

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

PROCESSING

Melt temperature: 220 - 260 °C

Die temperature: 220 - 260 °C