

Product Texts

Productprofil:

PLEXIGLAS® Resist zk6HF 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 zk6HF is characterized by the following special properties:

- excellent break resistance and impact strength
- improved resistance to stress cracking
- very good flow.

Application:

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

Example:

applications involving thin walls and long flow paths, thin-walled components; items requiring accurate mold surface reproduction, such as very finely textured luminaire covers.

Processing:

PLEXIGLAS® Resist zk6HF can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

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

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	4.2	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	1900	MPa	ISO 527
^[C] Yield stress	45	MPa	ISO 527
^[C] Yield strain	5	%	ISO 527
^[C] Nominal strain at break	50	%	ISO 527

PLEXIGLAS® Resist zk6HF

PMMA-I

Röhm GmbH

^[C] Charpy impact strength, +23°C	75	kJ/m ²	ISO 179/1eU
^[C] : CAMPUS			

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	92	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	91	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	96	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	94	°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] : 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	1.8	%	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	230	°C	ISO 294
Injection Molding, mold temperature	54	°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	85	°C	-
Pre-drying - Time	2 - 3	h	-
Melt temperature	220 - 260	°C	-
Mold temperature	50 - 70	°C	-

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion

Features

Amorphous

Delivery form

Pellets

Chemical Resistance

Environmental Stress Crack Resistance

Additives

Release agent

Regional Availability

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

Special Characteristics

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

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