

Product Texts

Productprofil:

PLEXIGLAS® Resist zk5HC 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 zk5HC is characterized by the following special properties:

- high break resistance and impact strength
- best resistance to stress cracking of all impact-modified PLEXIGLAS® molding compounds.

Application:

Used for extruding and coextruding sheets and profiles.

Example:

extruded/coextruded sheets and profiles for automotive bodies and the sanitaryware sector (bathtubs and shower trays) or crystal-clear luminaire covers for industrial plants that come into contact with aggressive media.

Processing:

PLEXIGLAS® Resist zk5HC molding compound 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	0.7	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	85	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2500	MPa	ISO 527
^[C] Yield stress	63	MPa	ISO 527
^[C] Yield strain	5	%	ISO 527
^[C] Nominal strain at break	28	%	ISO 527
^[C] Charpy impact strength, +23°C	55	kJ/m ²	ISO 179/1eU

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	108	°C	ISO 11357-1/-2
^[C] Vicat softening temperature, B	100	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	90	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	92	%	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	1170	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	250	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 294
Injection Molding, injection velocity	195	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Processing

Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form

Pellets

Additives

Release agent

Special Characteristics

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

Features

Amorphous

Chemical Resistance

Environmental Stress Crack Resistance

Applications

Automotive

Regional Availability

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

Other text information**Profile extrusion**

PREPROCESSING

Predrying temperature: max. 90 °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. 90 °C

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

PROCESSING

Melt temperature: 220 - 260 °C

Die temperature: 220 - 260 °C