

PLEXIGLAS® Resist zk5HC

Product Profile:

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.

Examples:

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.

For more information:

For more information, e.g. Charts or lists of resistance are in the database CAMPUS® (<http://www.campusplastics.com>) free of charge.

Properties:

	Parameter	Unit	Standard	PLEXIGLAS® Resist zk5HC
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	2500
Yield Stress	50 mm/min	MPa	ISO 527	63
Yield Strain	50 mm/min	%	ISO 527	5
Nominal Strain @ Break		%	ISO 527	28
Charpy Impact Strength	23°C	kJ/m ²	ISO 179/1eU	55
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	100
Glass Transition Temperature		°C	ISO 11357	108
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	*
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	*
Coeff. of Linear Therm. Expansion	0 – 50°C	E-5 /°K	ISO 11359	9
Classes of construction product			DIN EN 13501-1	E
Flammability UL 94	1.5 mm	Class	IEC 60695-11-10	HB
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm ³ /10min	ISO 1133	0.7
Optical Properties				
Luminous transmittance	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	92
Refractive Index	589nm/23°C		ISO 489	1.49
Other Properties				
Density		g/cm ³	ISO 1183	1.17
Water Absorption in Water	saturation, 23°C	%	ISO 62	1.9
Humidity Absorption	23°C / 50%	%	ISO 62	0.5
Recommended Processing Conditions				
Predrying Temperature		°C		max. 90
Predrying Time in Desiccant-Type Drier		h		2 – 3
Melt Temperature		°C		220 – 260
Mold Temperature (Injection Molding)		°C		50 – 70

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

Certified to ISO 9001:2015, ISO 14001:2015 and IATF 16949:2016.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

Evonik is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

® = registered trademark

PLEXIGLAS and PLEXIMID are registered trademarks of Evonik Röhm GmbH.

CAMPUS is a registered trademark of Chemie Wirtschaftsförderungs-GmbH, Frankfurt / M.

Evonik Performance Materials GmbH Kirschenallee 64293 Darmstadt
plexiglas.polymers@evonik.com
www.plexiglas-polymers.com

Ref. No.: MC116-E3 a1142 Date: 2018-03-28
