

Product Information

Page 1 of 2

PLEXIGLAS® zk40 Molding Compound

Product Profile:

PLEXIGLAS® zk40 is an amorphous, impact-modified thermoplastic molding compound (PMMA-I).

Typical properties of impact-modified PLEXIGLAS® molding compounds are

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

PLEXIGLAS® zk40 is characterized by the following special properties:

- very good break resistance and impact strength
- improved resistance to stress cracking
- AMECA listing.

Application:

Used for injection molding. Profile extrusion or coextrusion are also possible.

Examples:

lighting fixtures, writing and drawing utensils, domestic appliances and sanitaryware

Processing:

PLEXIGLAS® zk40 can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

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

Properties:

	Parameter	Unit	Standard	PLEXIGLAS® zk40
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	1600
Yield Stress	50 mm/min	MPa	ISO 527	42
Yield Strain	50 mm/min	%	ISO 527	4.5
Nominal Strain @ Break		%	ISO 527	30
Charpy Impact Strength	23°C	kJ/m ²	ISO 179/1eU	80
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	94
Glass Transition Temperature		°C	IEC 10006	115
Temp. of Deflection under Load	0.45 MPa	°C	ISO 75	92
Temp. of Deflection under Load	1.8 MPa	°C	ISO 75	85
Coeff. of Linear Therm. Expansion	0 – 50°C	E-5 /°K	ISO 11359	12
Flammability UL 94	1.6 mm	Class	IEC 707	HB
Rheological Properties				
Melt Volume Rate, MVR	230°C / 3.8kg	cm ³ /10min	ISO 1133	0.7
Optical Properties				
	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	90
Refractive Index			ISO 489	1.49
Other Properties				
Density		g/cm ³	ISO 1183	1.13
Humidity Absorption	23°C / 50%	%	ISO 62	0.38
Recommended Processing Conditions				
Predrying Temperature		°C		max. 84
Predrying Time in Desiccant-Type Drier		h		2 – 3
Melt Temperature		°C		230 – 240
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.

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.

The Business Unit Performance Polymers of Evonik is a worldwide manufacturer of PMMA molding compounds sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian Continent and under the trademark ACRYLITE® in the Americas.

® = registered trademark

PLEXIGLAS, PLEXALLOY, PLEXIMID and PLEX are registered trademarks of Evonik Röhm GmbH, Darmstadt, Germany