

Röhm Plexiglas® zk50 Molding Compound

Categories: [Polymer](#); [Thermoplastic](#); [Acrylic \(PMMA\)](#); [Acrylic, General Purpose, Molded](#)

Material Notes: PLEXIGLAS® Resist zk50 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® Resist zk50 is characterized by the following special properties:

- maximum break resistance and impact strength
- improved resistance to stress cracking
- certified dishwasher resistance

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

The former Evonik Methacrylates business has been sold to Röhm GmbH.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.12 g/cc	0.0405 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.40 %	0.40 %	23°C, 50%; ISO 62
Water Absorption at Saturation	1.2 %	1.2 %	Immersion; ISO 62
Melt Flow	0.112 g/10 min @Load 3.80 kg, Temperature 230 °C	0.112 g/10 min @Load 8.38 lb, Temperature 446 °F	ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	25.0 MPa	3630 psi	50 mm/min; ISO 527
Elongation at Break	>= 50 %	>= 50 %	ISO 527
Elongation at Yield	5.0 %	5.0 %	50 mm/min; ISO 527
Tensile Modulus	0.950 GPa	138 ksi	1 mm/min; ISO 527
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179
Charpy Impact, Notched	1.30 J/cm ²	6.19 ft-lb/in ²	ISO 179
Thermal Properties	Metric	English	Comments
CTE, linear	150 µm/m-°C @Temperature 0.000 - 50.0 °C	83.3 µin/in-°F @Temperature 32.0 - 122 °F	ASTM E831
Deflection Temperature at 0.46 MPa (66 psi)	73.0 °C	163 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	70.0 °C	158 °F	ISO 75
Vicat Softening Point	75.0 °C	167 °F	B50; ISO 306
Glass Transition Temp, Tg	115 °C	239 °F	ISO 11357
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	IEC 707
Optical Properties	Metric	English	Comments
Refractive Index	1.49	1.49	ISO 489
Transmission, Visible	89 %	89 %	Transmission Factor; DIN 5036
Processing Properties	Metric	English	Comments
Processing Temperature	230 - 240 °C	446 - 464 °F	Cylinder/Barrel Temperature
Melt Temperature	230 - 240 °C	446 - 464 °F	
Mold Temperature	50.0 - 70.0 °C	122 - 158 °F	
Drying Temperature	<= 70.0 °C	<= 158 °F	Predrying
Dry Time	2 - 3 hour	2 - 3 hour	Desiccant-type drier

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.

