

Plexiglas® Resist zk5BR

Polymethyl Methacrylate Acrylic
Evonik Industries AG

Message:

Product Profile:
PLEXIGLAS® Resist zk5BR 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 zk5BR is characterized by the following special properties:
high break resistance and impact strength
improved resistance to stress cracking
balanced property profile
AMECA listing.

Application:
Used for injection molding as well as for extruding and coextruding panels and profiles
Examples:
mobile phone displays, extruded and injection-molded luminaire covers, extruded hollow profiles, writing utensils such as stencils and fountain pens, housings, coextruded profiles for
window frames, gutters, downspouts, and housewares such as cutlery handles, bowls, cookie jars.

General Information	
UL YellowCard	E65495-247819
Additive	Impact Modifier
Features	Good Weather Resistance
	High Clarity
	High ESCR (Stress Crack Resist.)
	High Impact Resistance
	Pleasing Surface Appearance
Uses	Displays
	Household Goods
	Housings
	Outdoor Applications
	Outdoor Furnishings
	Profiles
	Protective Coverings
	Windows & Doors
	Writing Instruments
Forms	Pellets
Processing Method	Coextrusion
	Extrusion

Injection Molding

Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)
	Isochronous Stress vs. Strain (ISO 11403-1)
	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)
	Shear Modulus vs. Temperature (ISO 11403-1)
	Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Density	1.17	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	3.30	cm ³ /10min	ISO 1133
Water Absorption			ISO 62
23°C, 24 hr	1.9	%	
Equilibrium, 23°C, 50% RH	0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2/1
Tensile Stress (Yield)	62.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	4.5	%	ISO 527-2/50
Nominal Tensile Strain at Break	27	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	50	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	98.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	93.0	°C	ISO 75-2/A
Glass Transition Temperature	109	°C	ISO 11357-2
Vicat Softening Temperature	100	°C	ISO 306/B50
CLTE - Flow (0 to 50°C)	9.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (1.60 mm)	HB		UL 94
Fire Rating	B2		DIN 4102
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.490		ISO 489
Transmittance ¹	92.0	%	ISO 13468-2
Haze	< 2.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	< 90.0	°C	
Drying Time	2.0 to 3.0	hr	
Processing (Melt) Temp	220 to 260	°C	
Mold Temperature	50.0 to 70.0	°C	

NOTE

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