

ACRYLITE® Resist ZK5BR polymer

Product Profile:

ACRYLITE® Resist ZK5BR polymer is an amorphous, impact-modified thermoplastic molding and extrusion compound based on polymethyl methacrylate (PMMA).

Typical properties of ACRYLITE® Resist acrylic polymers are:

- high weather resistance
- high light transmission
- improved resistance to stress cracking
- good melt flow rate
- easy to color

The special properties of ACRYLITE® Resist ZK5BR polymer are:

- medium impact/break resistance and strength
- brilliant optical clarity
- low melt flow rate
- high heat resistance
- AMECA listed

Application:

Used for injection molded parts.

Examples:

Mobile phone displays, point-of-purchase displays, light covers, fountain pens, appliance housings, appliance lenses and housewares.

Processing:

ACRYLITE® Resist ZK5BR polymer can be processed in injection molding machines and extrusion lines with 3- zone general purpose screws.

Packaging:

Available in 1500 lb. gaylord boxes; other packaging available on request.

Properties:

	Parameter	Unit	ASTM-Standard	ACRYLITE® Resist ZK5BR polymer
Mechanical Properties				Typical Value
Tensile Strength		psi [MPa]	D 638	9000 [62]
Tensile Modulus		x10 ⁶ psi [GPa]	D 638	0.36 [2.5]
Tensile Elongation @ Yield		%	D 638	5
Tensile Elongation @ Break		%	D 638	30
Flexural Strength		psi [MPa]	D 790	12900 [88.7]
Flexural Modulus		x10 ⁶ psi [GPa]	D 790	0.33 [2.3]
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	0.80 [41.6]
Notched Izod	¼" bar @0°C	ft-lb/in [J/m]	D 256	0.50 [26.3]
Rockwell Hardness		M Scale	D 785	70
Thermal Properties				
Vicat Softening Point	264 psi	°F [°C]	D 1525	217 [103]
Deflection Temperature, Annealed	1.8MPa, 0.250"	°F [°C]	D 648	210 [99]
Coeff. of Linear Therm. Expansion	32 - 312°F	in/ in/°F	D 696	0.00004
Coeff. of Linear Therm. Expansion	0 - 100°C	mm/mm/°C	D 696	0.000072
Rheological Properties				
Melt Flow Rate	230°C & 3.8 kg	g/10min	D 1238	3.4
Optical Properties				d = 3.2 mm
Light Transmission		%	D 1003	>90
Haze		%	D 1003	<2
Yellowness Index			D 1925	0.3
Other Properties				
Specific Gravity			D 792	1.18
Water Absorption		% Max	D 570	0.3
Mold Shrinkage		in/in, mm/mm	D 955	0.004 - 0.007
Bulk Density		g/cc	D 1895	0.71

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

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