

ACRYLITE® Resist ZK-F polymer

Product Profile:

ACRYLITE® Resist ZK-F 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 ZK-F polymer are:

- medium impact/break resistance and strength
- high melt flow rate
- high heat resistance
- FDA food contact use

Application:

Used for injection molded parts.

Examples:

Light covers, fountain pens, appliance housings, appliance lenses and housewares.

Processing:

ACRYLITE® Resist ZK-F 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 ZK-F polymer |
|-----------------------------------|----------------|----------------------------|---------------|-------------------------------|
| Mechanical Properties | | | | Typical Value |
| Tensile Strength | | psi [MPa] | D 638 | 8200 [56.2] |
| Tensile Modulus | | x10 ⁶ psi [GPa] | D 638 | 0.33 [2.3] |
| Tensile Elongation @ Yield | | % | D 638 | 5 |
| Tensile Elongation @ Break | | % | D 638 | 25 |
| Flexural Strength | | psi [MPa] | D 790 | 10000 [68.9] |
| Flexural Modulus | | x10 ⁶ psi [GPa] | D 790 | 0.29 [2.0] |
| Notched Izod | ¼" bar @23°C | ft-lb/in [J/m] | D 256 | 0.75 [39.6] |
| Notched Izod | ¼" bar @0°C | ft-lb/in [J/m] | D 256 | 0.45 [23.9] |
| Rockwell Hardness | | M Scale | D 785 | 65 |
| Thermal Properties | | | | |
| Vicat Softening Point | 264 psi | °F [°C] | D 1525 | 208 [98] |
| Deflection Temperature, Annealed | 1.8MPa, 0.250" | °F [°C] | D 648 | 196 [91] |
| 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 | 13.0 |
| Optical Properties | | | | d = 3.2 mm |
| Light Transmission | | % | D 1003 | 92 |
| Haze | | % | D 1003 | 1 |
| Yellowness Index | | | D 1925 | 0.3 |
| Other Properties | | | | |
| Specific Gravity | | | D 792 | 1.17 |
| Water Absorption | | % Max | D 570 | 0.3 |
| Mold Shrinkage | | in/in, mm/mm | D 955 | 0.003 - 0.006 |
| 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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