

## ACRYLITE® Resist ZK-P polymer

### Product Profile:

ACRYLITE® Resist ZK-P 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-P polymer are:

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

### Application:

Used for injection molded parts.

### Examples:

Light covers, automotive tail light lenses, appliance housings, appliance lenses and housewares.

### Processing:

ACRYLITE® Resist ZK-P 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-P polymer |
|-----------------------------------|----------------|----------------------------|---------------|-------------------------------|
| <b>Mechanical Properties</b>      |                |                            |               | Typical Value                 |
| Tensile Strength                  |                | psi [MPa]                  | D 638         | 10500 [72.4]                  |
| Tensile Modulus                   |                | x10 <sup>6</sup> psi [GPa] | D 638         | 0.40 [2.8]                    |
| Tensile Elongation @ Yield        |                | %                          | D 638         | 5                             |
| Tensile Elongation @ Break        |                | %                          | D 638         | 20                            |
| Flexural Strength                 |                | psi [MPa]                  | D 790         | 15700 [72.4]                  |
| Flexural Modulus                  |                | x10 <sup>6</sup> psi [GPa] | D 790         | 0.40 [2.8]                    |
| Notched Izod                      | ¼" bar @23°C   | ft-lb/in [J/m]             | D 256         | 0.60 [31.5]                   |
| Notched Izod                      | ¼" bar @0°C    | ft-lb/in [J/m]             | D 256         | 0.35 [18.5]                   |
| Rockwell Hardness                 |                | M Scale                    | D 785         | 80                            |
| <b>Thermal Properties</b>         |                |                            |               |                               |
| Vicat Softening Point             | 264 psi        | °F [°C]                    | D 1525        | 219 [104]                     |
| Deflection Temperature, Annealed  | 1.8MPa, 0.250" | °F [°C]                    | D 648         | 198 [92]                      |
| 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                      |
| <b>Rheological Properties</b>     |                |                            |               |                               |
| Melt Flow Rate                    | 230°C & 3.8 kg | g/10min                    | D 1238        | 4.5                           |
| <b>Optical Properties</b>         |                |                            |               | d = 3.2 mm                    |
| Light Transmission                |                | %                          | D 1003        | 92                            |
| Haze                              |                | %                          | D 1003        | 1                             |
| Yellowness Index                  |                |                            | D 1925        | 0.3                           |
| <b>Other Properties</b>           |                |                            |               |                               |
| Specific Gravity                  |                |                            | D 792         | 1.18                          |
| 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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Roehm America LLC • 299 Jefferson Road • Parsippany NJ 07054  
[www.acrylite-polymers.de](http://www.acrylite-polymers.de)  
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