



Product Information

ACRYLITE® 8N polymer

Product Profile:

ACRYLITE® 8N acrylic polymer is an amorphous thermoplastic molding and extrusion compound based on polymethyl methacrylate (PMMA).

Typical properties of ACRYLITE® acrylic polymers are:

- excellent weather resistance
- high light transmission
- high mechanical strength
- high surface hardness and mar resistance
- good melt flow rate
- versatile colorability due to crystal clarity

The special properties of ACRYLITE® 8N polymer are:

- highest heat resistance
- high melt strength
- UV light absorption options
- low levels of lubricant
- AMECA listed

Application:

Used for injection molding commercial and residential lighting lenses, automotive lenses and parts, optical devices and extruded profiles.

Examples:

Automotive rear light lenses, reflex lenses, fog light lenses, telematic sensors, displays, light covers and HID lamp lenses.

Processing:

ACRYLITE® 8N 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® 8N polymer |
|-----------------------------------|----------------|----------------------------|---------------|----------------------|
| | | | | Typical Value |
| Mechanical Properties | | | | |
| Tensile Strength | | psi [MPa] | D 638 | 11300 [77.9] |
| Tensile Modulus | | x10 ⁶ psi [GPa] | D 638 | 0.47 [3.2] |
| Tensile Elongation @ Yield | | % | D 638 | 4 – 6 |
| Tensile Elongation @ Break | | % | D 638 | 4 – 6 |
| Flexural Strength | | psi [MPa] | D 790 | 16200 [111.7] |
| Flexural Modulus | | x10 ⁶ psi [GPa] | D 790 | 0.5 [3.5] |
| Notched Izod | ¼" bar @23°C | ft–lb/in [J/m] | D 256 | 0.36 [19] |
| Rockwell Hardness | | M Scale | D 785 | 95 |
| Thermal Properties | | | | |
| Vicat Softening Point | 264 psi | °F [°C] | D 1525 | 226[108] |
| Deflection Temperature, Annealed | 1.8MPa, 0.250" | °F [°C] | D 648 | 212 [100] |
| 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 | 3.3 |
| Optical Properties | | | | |
| | d = 3.2 mm | | | |
| Light Transmission | | % | D 1003 | 92 |
| Haze | | % | D 1003 | <1 |
| Yellowness Index | | | D 1925 | <1 |
| Other Properties | | | | |
| Specific Gravity | | | D 792 | 1.19 |
| 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 | 0.66 |

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