Product Information

# ACRYLITE® Satinice ZD 23 polymer

Product Profile:

ACRYLITE® Satinice ZD 23 polymer is an amorphous, impact-modified light diffusing thermoplastic molding and extrusion compound based on polymethyl methacrylate (PMMA).

Typical properties of ACRYLITE® Satinice zdf polymers are:
- high weather resistance
- superior light diffusion (hiding power) and transmittance
- improved resistance to stress cracking
- good melt flow rate
- easy to color

The special properties of ACRYLITE® Satinice ZD 23 polymer are:
- high impact/break resistance and strength
- medium melt flow rate
- high heat resistance
- FDA food contact uses

Application:

Used for injection molded parts.

Examples:

Injection molded light covers requiring filament hiding capabilities, fountain pens, appliance housings, appliance lenses and housewares.

Processing:

ACRYLITE® Satinice ZD 23 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® Satinice ZD 23 polymer |
|---|---|---|---|---|
| **Mechanical Properties** | | | | Typical Value |
| Tensile Strength | | psi [MPa] | D 638 | 6400 [44.1] |
| Tensile Modulus | | x10⁶ psi [GPa] | D 638 | 0.25 [1.7] |
| Tensile Elongation @ Yield | | % | D 638 | 4 |
| Tensile Elongation @ Break | | % | D 638 | 20 |
| Flexural Strength | | psi [MPa] | D 790 | 10000 [69.0] |
| Flexural Modulus | | x10⁶ psi [GPa] | D 790 | 0.26 [1.8] |
| Notched Izod | ¼" bar @23°C | ft-lb/in [J/m] | D 256 | 1.0 [52.5] |
| Notched Izod | ¼" bar @0°C | ft-lb/in [J/m] | D 256 | 0.5 [26.3] |
| Rockwell Hardness | | M Scale | D 785 | 44 |
| **Thermal Properties** | | | | |
| Vicat Softening Point | 264 psi | °F [°C] | D 1525 | 226 [108] |
| Deflection Temperature, Annealed | 1.8MPa, 0.250" | °F [°C] | D 648 | 185 [85] |
| Coeff. of Linear Therm. Expansion | 32 - 312°F | in/ in/°F | D 696 | 0.00005 |
| Coeff. of Linear Therm. Expansion | 0 - 100°C | mm/mm/°C | D 696 | 0.00009 |
| **Rheological Properties** | | | | |
| Melt Flow Rate | 230°C & 3.8 kg | g/10min | D 1238 | 3.1 |
| **Optical Properties** | d = 3.2 mm | | | |
| Light Transmission | | % | D 1003 | 85 |
| Haze | | % | D 1003 | 96 |
| Yellowness Index | | | D 1925 | 5.5 |
| **Other Properties** | | | | |
| Specific Gravity | | | D 792 | 1.15 |
| 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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