

## CYROLITE® CG-97 compound

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### Product Profile:

CYROLITE CG-97 compound is an impact-modified acrylic-based multipolymer for molding and extrusion of medical applications.

Typical properties of CYROLITE® acrylic-based multipolymer compounds are:

- excellent chemical resistance to fats and oils
- excellent bonding and welding capabilities
- excellent bonding to PVC tubing
- good impact strength
- good light transmission
- good resistance to EtO, gamma and E-beam sterilization

The special properties of CYROLITE CG-97 compound are:

- superior resistance to lipids
- excellent gamma sterilization color stability
- high impact resistance
- very good resistance to alcohol

### Application:

Used for injection molding and extrusion of medical devices.

### Examples:

Needle hubs, IV, lab and pediatric filters.

### Processing:

CYROLITE CG-97 compound 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.

### Regulatory and compliance requirements:

Meets requirements of the United States Pharmacopeia Class VI in 001 tint only; ISO 10993-1 in 001 tint only and FDA for food contact for all use conditions up to and including hot filled or pasteurized above 150 degrees F (e.g. Condition 21 CFR 176.170) for all food types except those containing more than 8% alcohol.

## Properties:

|                                   | Parameter      | Unit                       | ASTM-Standard | CYROLITE® CG-97 compound |
|-----------------------------------|----------------|----------------------------|---------------|--------------------------|
| <b>Mechanical Properties</b>      |                |                            |               | Typical Value            |
| Tensile Strength                  |                | psi [MPa]                  | D 638         | 5270 [36.3]              |
| Tensile Modulus                   |                | x10 <sup>6</sup> psi [GPa] | D 638         | 0.27 [1.9]               |
| Tensile Elongation @ Yield        |                | %                          | D 638         | 3.8                      |
| Tensile Elongation @ Break        |                | %                          | D 638         | 13.9                     |
| Flexural Strength                 |                | psi [MPa]                  | D 790         | 9800 [67.6]              |
| Flexural Modulus                  |                | x10 <sup>6</sup> psi [GPa] | D 790         | 0.27 [1.8]               |
| Notched Izod                      | ¼" bar @23°C   | ft-lb/in [J/m]             | D 256         | 2.3 [122]                |
| Rockwell Hardness                 |                | L Scale                    | D 785         | 47                       |
| <b>Thermal Properties</b>         |                |                            |               |                          |
| Vicat Softening Point             | 264 psi        | °F [°C]                    | D 1525        | 194 [90]                 |
| Deflection Temperature, Annealed  | 1.8MPa, 0.250" | °F [°C]                    | D 648         | 158 [70]                 |
| Coeff. of Linear Therm. Expansion | 32 – 312°F     | in/ in/°F                  | D 696         | 0.000053                 |
| Coeff. of Linear Therm. Expansion | 0 – 100°C      | mm/mm/°C                   | D 696         | 0.000095                 |
| <b>Rheological Properties</b>     |                |                            |               |                          |
| Melt Flow Rate                    | 230°C & 5.0 kg | g/10min                    | D 1238        | 1.8                      |
| <b>Optical Properties</b>         |                |                            |               | d = 3.2 mm               |
| Light Transmission                |                | %                          | D 1003        | 87                       |
| Haze                              |                | %                          | D 1003        | 5.0                      |
| Yellowness Index                  |                |                            | Cyro TM       | -0.3                     |
| <b>Other Properties</b>           |                |                            |               |                          |
| Specific Gravity                  |                |                            | D 792         | 1.08                     |
| Water Absorption                  |                | % Max                      | D 570         | 0.4                      |
| Mold Shrinkage                    |                | in/in, mm/mm               | D 955         | 0.005 – 0.007            |
| Bulk Density                      |                | g/cc                       | D 1895        | 0.65                     |

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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