

CYROLITE® G-20 compound

Product Profile:

CYROLITE G-20 compound is an impact-modified acrylic-based multipolymer for molding and extrusion of medical applications.

Typical properties of CYROLITE G-20 compound 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 heat resistance
- good resistance to EtO, gamma and E-beam sterilization

Application:

Used for injection molding and extrusion of medical devices, medical packaging, as well as food packaging, toys and appliance parts.

Examples:

Y-sites, luer connectors and check valves.

Processing:

CYROLITE G-20 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® G-20 compound |
|-----------------------------------|----------------|----------------------------|---------------|-------------------------|
| Mechanical Properties | | | | Typical Value |
| Tensile Strength | | psi [MPa] | D 638 | 6800 [46.9] |
| Tensile Modulus | | x10 ⁶ psi [GPa] | D 638 | 0.32 [2.2] |
| Tensile Elongation @ Yield | | % | D 638 | 4.0 |
| Tensile Elongation @ Break | | % | D 638 | 9.5 |
| Flexural Strength | | psi [MPa] | D 790 | 10500 [72.4] |
| Flexural Modulus | | x10 ⁶ psi [GPa] | D 790 | 0.34 [2.3] |
| Notched Izod | ¼" bar @23°C | ft-lb/in [J/m] | D 256 | 1.9 [101] |
| Notched Izod | ¼" bar @0°C | ft-lb/in [J/m] | D 256 | 1.1 [59] |
| Rockwell Hardness | | M Scale | D 785 | 39 |
| Thermal Properties | | | | |
| Vicat Softening Point | 264 psi | °F [°C] | D 1525 | 214 [101] |
| Deflection Temperature, Annealed | 1.8MPa, 0.250" | °F [°C] | D 648 | 186 [86] |
| Coeff. of Linear Therm. Expansion | 32 – 312°F | in/ in/°F | D 696 | 0.0000514 |
| Coeff. of Linear Therm. Expansion | 0 – 100°C | mm/mm/°C | D 696 | 0.0000925 |
| Rheological Properties | | | | |
| Melt Flow Rate | 230°C & 5.0 kg | g/10min | D 1238 | 2.6 |
| Optical Properties | | | | d = 3.2 mm |
| Light Transmission | | % | D 1003 | 89 |
| Haze | | % | D 1003 | 5.0 |
| Yellowness Index | | | Cyro TM | -0.3 |
| Other Properties | | | | |
| Specific Gravity | | | D 792 | 1.11 |
| 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 | 0.65 |

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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