

Product Information

Page 1 of 2

CYROLITE® G-20 HIFLO® acrylic-based multipolymer compound

Product Profile:

CYROLITE G-20 HIFLO 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 G-20 HIFLO compound are:

- excellent melt flow rate
- good heat resistance

Application:

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

Examples:

Y-sites, luer connectors and check valves.

Processing:

CYROLITE G-20 HIFLO 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-HIFLO compound
Mechanical Properties				Typical Value
Tensile Strength		psi [MPa]	D 638	7000 [48.3]
Tensile Modulus		x10 ⁶ psi [GPa]	D 638	0.37 [2.6]
Tensile Elongation @ Yield		%	D 638	3.6
Tensile Elongation @ Break		%	D 638	9.5
Flexural Strength		psi [MPa]	D 790	9400 [64.8]
Flexural Modulus		x10 ⁶ psi [GPa]	D 790	0.31 [2.1]
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	27
Thermal Properties				
Vicat Softening Point		°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	10.0
Optical Properties				d = 3.2 mm
Light Transmission		%	D 1003	89
Haze		%	D 1003	6.0
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
Recommended processing conditions				
Predrying Temperature		°F [°C]		175 [80]
Predrying Time		hour		3 – 4
Melt Temperature		°F [°C]		380 – 460 [193 – 238]
Mold Temperature		°F [°C]		120 – 180 [49 – 82]

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

This information and all technical and other advice are based on Evonik Cyro's present knowledge and experience. However, Evonik Cyro assumes no liability for such information or advice, including the extent to which such information or advice may relate to third party intellectual property rights. Evonik Cyro reserves the right to make any changes to information or advice at any time, without prior or subsequent notice. EVONIK CYRO DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND SHALL HAVE NO LIABILITY FOR, MERCHANTABILITY OF THE PRODUCT OR ITS FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE), OR OTHERWISE. EVONIK SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. It is the customer's sole responsibility to arrange for inspection and testing of all products by qualified experts. Reference to trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. ACRYLITE, ACRYLITE PLUS, ACRYMID, CYROLITE, CYREX, CYRO, CYROVU, Vu-Stat and XT polymer are registered trademarks of Evonik Cyro LLC. Evonik's Business Unit Performance Polymers is a worldwide manufacturer of PMMA molding compounds sold under the trademark ACRYLITE® in the Americas and under the PLEXIGLAS® trademark everywhere outside of the Americas. ® = registered trademark

Evonik Cyro LLC 379 Interpace Parkway, Parsippany, NJ 07054 USA
 Phone: 800-631-5384 Email: cyro.polymer@evonik.com www.cyro.com
 Technical Support: visit the TechKnowlogy Center at cyro.custhelp.com

Evonik Röhm GmbH Kirschenallee D-64293 Darmstadt
 Phone: +49 6151 18-4772 Email: plexiglas.polymers@evonik.com www.plexiglas.net

Ref. No.: 3507-1008-ACCESSDB v0160-A Date: 11/07/2008

