CYROLITE®
ADVANCED
MEDICAL ACRYLICS

PRODUCT INFORMATION

CYROLITE® CP G-20

Product Profile:

CYROLITE® CP G-20 is a PMMA-based copolymer for injection molding and extrusion of UV- Light protective medical applications.

Typical properties of CYROLITE® CP G-20 are:

- Excellent Processability
- 5 times the impact resistance of unmodified acrylics
- Resistant to body fluids and many chemicals
- Excellent bonding to PVC tubing
- Can be thermal bonded, ultrasonic and laser welded
- Good heat resistance
- Resistance to EtO, gamma and E-beam sterilization

Special Properties of CYROLITE® CP G-20 compound are:

- Low UV-light transmission <1.0% 260 - 480 nm
- Excellent Transmittance between 500 – 780 nm

Application:

Used for injection molding and extrusion applications that require UV-light protection in infusion therapy medical devices.

CYROLITE® CP G-20 ensures integrity of photosensitive substances such as oncology drugs, antibiotic, and antifungal agents.

Examples:

Filter housings, Y-sites, luer connectors, needleless connectors and check valves.

Processing:

CYROLITE® CP G-20 can be processed in injection molding machines and extrusion lines with 3- zone general purpose screws.

Physical Form / 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; ISO 10993-1 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.

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+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Properties:

	Parameter	Unit	ASTM-Standard	CYROLITE® CP G-20
Mechanical Properties				**Typical Value**
Tensile Strength		psi [MPa]	D 638	6800 [46.9]
Tensile Modulus		x10⁶ 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		x10⁶ 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	50N, 50°C/h	°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 - 312ºF	1/°F	D 696	0.0000514
Coeff. of Linear Therm. Expansion	0 - 100°C	1/°C	D 696	0.0000925
Rheological Properties				
Melt Flow Rate	230°C & 5.0 kg	g/10min	D 1238	2.6
Optical Properties	d = 0.5 mm			
UV Transmittance	260 – 480mm		D 1003	<1.0%
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.

Certified to ISO 9001:2015, ISO 14001:2015 and IATF 16949:2016.

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