

PRODUCT INFORMATION

CYROLITE® GS-90

Product Profile:

CYROLITE® GS-90 is a PMMA-based copolymer for injection molding and extrusion of medical applications.

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

- High Light Transmittance with little haze
- 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

The special properties of CYROLITE® GS-90 are:

- Superior gamma sterilization color stability
- Excellent melt flow rate
- Superior transmission and clarity

Application:

Used for injection molding and extrusion of medical device and diagnostics industries.

Examples:

Y-Sites, Luer Locks, Needle Hubs, Connectors, Check Valves and Drip Chambers.

Processing:

CYROLITE® GS-90 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 in colorless (000) only; ISO 10993-1 in colorless (000) 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	Standard	CYROLITE® GS-90
Mechanical Properties				
Tensile Modulus	1 mm/min	MPa	ISO 527	2300
Yield Stress	50 mm/min	MPa	ISO 527	46
Yield Strain	50 mm/min	%	ISO 527	3,8
Nominal Strain @ Break		%	ISO 527	14
Charpy Notched Impact Strength	23°C	kJ/m²	ISO 179/1	11
Thermal Properties				
Vicat Softening Temperature	B / 50	°C	ISO 306	95
Classes of construction product			DIN EN 13501-1	HB
Rheological Properties				
Melt Volume Rate, MVR	230°C & 3,8kg	cm³/10min	ISO 1133	3
Optical Properties				
	d=3 mm			
Luminous transmittance	D65	%	ISO 13468-2	89
Haze		%	ASTM D1003	3,0
Refractive Index	589nm/23°C		ISO 489	1,52
Other Properties				
Density		g/cm³	ISO 1183	1.11

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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