

# CYROLITE® Protect G23P

Polymethyl Methacrylate Acrylic

Evonik Cyro LLC

Message:

CYROLITE® Protect and CYROLITE® Protect 2 acrylic-based multipolymer compounds and CYREX® Protect acrylic-polycarbonate alloy provide antimicrobial capabilities\* against a variety of microorganisms commonly found in healthcare facilities. Antimicrobial products are used in medical devices for secondary infection management or to inhibit bacterial growth.

Characteristics

Transparent green tint, easy to process and free of bisphenol A (BPA)

Benefits

Antimicrobial capabilities within the polymer structure. No secondary operations required.

Chemical resistance to lipids and alcohol

Easily welded

Bondable to PVC tubing

Excellent impact strength

EtO, gamma and e-beam sterilizable

Typical Medical Applications

Luer connectors, IV spikes, needle hubs, adapters, fittings, filter housings, Y-sites, valve assemblies, protection caps and covers and sharp needle dispenser receptacles. CYREX® Protect offers excellent properties for use in hand-held medical device housings.

General Information	
Features	Bondability
	BPA Free
	E-beam Sterilizable
	Ethylene Oxide Sterilizable
	Food Contact Acceptable
	Good Chemical Resistance
	High Impact Resistance
	Microbe Resistant
	Radiation Sterilizable
	Weldable
Uses	Caps
	Connectors
	Filters
	Fittings
	Housings
	Medical/Healthcare Applications
	Valves/Valve Parts
Agency Ratings	EC 1907/2006 (REACH)
	FDA 21 CFR 176.170
	USP Class VI
RoHS Compliance	RoHS Compliant

Appearance	Transparent Green
Forms	Pellets
Processing Method	Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	10	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2100	MPa	ASTM D638
Tensile Strength	47.2	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	3.0	%	
Break	8.0	%	
Flexural Modulus	2200	MPa	ASTM D790
Flexural Strength	70.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 6.35 mm)	64	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed, 6.35 mm)	75.0	°C	ASTM D648
Vicat Softening Temperature	100	°C	ASTM D1525
Optical	Nominal Value	Unit	Test Method
Transmittance (3000 μm)	40.0	%	ASTM D1003
Haze (3000 μm)	48	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	79.0	°C	
Drying Time	3.0 to 4.0	hr	
Processing (Melt) Temp	232 to 249	°C	
Mold Temperature	50.0 to 82.0	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	79.0	°C	
Drying Time	3.0 to 4.0	hr	
Melt Temperature	232 to 249	°C	

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