CYREX® 200-8005

Polycarbonate + Acrylic (PMMA)

Evonik Cyro LLC

Message:

CYREX 200-8005 alloy is an opaque, acrylic polycarbonate alloy with an impact strength that is higher than polycarbonate for molding and extrusion medical applications.

Typical properties of CYREX® acrylic-polycarbonate alloys are:

outstanding impact strength and toughness

excellent processing characteristics

very good chemical resistance

good heat resistance

The special properties of CYREX 200-8005 alloy are:

medium melt flow rate

excellent resistance to both alcohol and lipids

good resistance to EtO, gamma and E-beam sterilization

Used for injection molding and extrusion of both thin and thick wall applications which require excellent toughness.

General Information					
Features	Alcohol Resistant				
	E-beam Sterilizable				
	Ethylene Oxide Sterilizable Good Chemical Resistance				
	Good Toughness				
	High Impact Resistance				
	Medium Flow				
	Medium Heat Resistance				
	Radiation Sterilizable				
Uses	Medical/Healthcare Applications				
	Thick-walled Parts				
	Thin-walled Parts				
Agency Ratings	EC 1907/2006 (REACH)				
	FDA 21 CFR 176.170				
	USP Class VI				
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Appearance	Opaque				
Forms	Pellets				
Processing Method	Extrusion				
	Injection Molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.15	g/cm³	ASTM D792		

Apparent Density	0.65	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.80	%	ASTM D551
Water Absorption (24 hr)	< 0.26	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	49		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2210	MPa	ASTM D638
Tensile Strength (Yield)	55.2	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	4.3	%	
Break	57	%	
Flexural Modulus	2210	MPa	ASTM D790
Flexural Strength	77.9	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	1400	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8			
MPa, Annealed)	101	°C	ASTM D648
Vicat Softening Temperature	141	°C	ASTM D1525
CLTE - Flow (0 to 100°C)	9.4E-5	cm/cm/°C	ASTM D696
Optical	Nominal Value		Test Method
Transmittance	Opaque		ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	3.0 to 4.0	hr	
Rear Temperature	199 to 266	°C	
Middle Temperature	199 to 266	°C	
Front Temperature	199 to 266	°C	
Processing (Melt) Temp	238 to 266	°C	
Mold Temperature	65.6 to 98.9	°C	

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