

## Evonik CYRO CyRex® 200-8000 Acrylic-Polycarbonate Alloy

Category : Polymer , Thermoplastic , Acrylic (PMMA) , Acrylic/Polycarbonate Alloy , Polycarbonate (PC)

### Material Notes:

CYREX 200-8000 alloy is an opaque, acrylic-polycarbonate alloy with an impact strength that is higher than polycarbonate. Typical properties of CYREX acrylic-polycarbonate alloy are: outstanding impact strength and toughness, excellent processing characteristics, very good chemical resistance, good heat resistance. The special property of CYREX 200-8000 alloy is medium melt flow rate. Application: Used for drug delivery devices, inhalation devices, electronic packaging and any application where anti static protection is required. Used for injection molding and extrusion of both thin and thick wall applications which require excellent toughness.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Evonik-CYRO-CyRex-200-8000-Acrylic-Polycarbonate-Alloy.php](http://www.lookpolymers.com/polymer_Evonik-CYRO-CyRex-200-8000-Acrylic-Polycarbonate-Alloy.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 g/cc	1.15 g/cc	ASTM D792
Bulk Density	0.650 g/cc	0.0235 lb/in <sup>3</sup>	ASTM D1895
Water Absorption	<= 0.26 %	<= 0.26 %	ASTM D570
Linear Mold Shrinkage	0.0040 - 0.0080 cm/cm	0.0040 - 0.0080 in/in	ASTM D951
Melt Flow	3.9 g/10 min @Load 3.80 kg, Temperature 230 °C	3.9 g/10 min @Load 8.38 lb, Temperature 446 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	46	46	ASTM D785
Tensile Strength at Break	61.0 MPa	8850 psi	ASTM D638
Elongation at Break	58 %	58 %	ASTM D638
Elongation at Yield	4.7 %	4.7 %	ASTM D638
Tensile Modulus	2.41 GPa	350 ksi	ASTM D638
Flexural Strength	86.2 MPa	12500 psi	ASTM D790
Flexural Modulus	2.41 GPa	350 ksi	ASTM D790
Izod Impact, Notched	16.0 J/cm @Diameter 3.17 mm	30.0 ft-lb/in @Diameter 0.125 in	bar; ASTM D256
	2.14 J/cm @Diameter 6.35 mm, Temperature 0.000 °C	4.00 ft-lb/in @Diameter 0.250 in, Temperature 32.0 °F	BAR; ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	93.6 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	52.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ASTM D696
	@Temperature 0.000 - 100 $^\circ\text{C}$	@Temperature 32.0 - 212 $^\circ\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	101 $^\circ\text{C}$	214 $^\circ\text{F}$	Annealed; ASTM D648
	@Thickness 6.35 mm	@Thickness 0.250 in	
Vicat Softening Point	136 $^\circ\text{C}$	277 $^\circ\text{F}$	ASTM D1525

Optical Properties	Metric	English	Comments
Transmission, Visible	0.0 %	0.0 %	Opaque; ASTM D1003

Processing Properties	Metric	English	Comments
Middle Barrel Temperature	199 - 266 $^\circ\text{C}$	390 - 510 $^\circ\text{F}$	Cylinder Temp
Melt Temperature	238 - 266 $^\circ\text{C}$	460 - 510 $^\circ\text{F}$	
Mold Temperature	65.6 - 98.9 $^\circ\text{C}$	150 - 210 $^\circ\text{F}$	
Drying Temperature	82.2 $^\circ\text{C}$	180 $^\circ\text{F}$	
Dry Time	3 - 4 hour	3 - 4 hour	

## Contact Songhan Plastic Technology Co.,Ltd.

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