CYREX® 953

Polycarbonate + Acrylic (PMMA)

Evonik Cyro LLC

Message:

CYREX 953 alloy is an opaque, acrylic-polycarbonate alloy with an impact strength that is higher than polycarbonate.
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 953 alloy are:
high impact strength at cold temperature
high melt flow rate
Used for injection molding and extrusion of both thin and thick wall applications.

General Information	
Features	Good Chemical Resistance Good Impact Resistance Good Processability Good Toughness Medium Heat Resistance
Uses	Appliances Automotive Applications Furniture Housings Sheet Thick-walled Parts Thin-walled Parts
Agency Ratings	EC 1907/2006 (REACH)
Appearance	Opaque
Forms	Pellets
Processing Method	Extrusion Injection Molding Thermoforming

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)	1.9	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.80	%	ASTM D955
Water Absorption (Saturation)	0.26	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	44		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2070	MPa	ASTM D638
Tensile Strength	54.2	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	4.2	%	
Break	88	%	
Flexural Modulus	2070	MPa	ASTM D790
Flexural Strength	86.2	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
0°C, 3.18 mm	910	J/m	
23°C, 3.18 mm	1400	J/m	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Annealed)	103	°C	ASTM D648
Vicat Softening Temperature	135	°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	238 to 266	°C	
Front Temperature	199 to 266	°C	
Nozzle Temperature	199 to 266	°C	
Processing (Melt) Temp	238 to 266	°C	
Mold Temperature	65.6 to 98.9	°C	

Recommended distributors for this material

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