CYCOLOY™ FR Resin CX7240 - Europe

(PC+ABS) Saudi Basic Industries Corporation (SABIC)

Product Texts

CYCOLOY CX7240 Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an injection moldable, medium flow, non chlorinated/brominated flame retardant grade. It has a UL94 V0@.75mm, 5VA@3.0mm and 5VB@1.5mm flame rating. This grade has improved chemical resistance compared to standard PC/ABS blends and is a good candidate for thin wall applications.

UL Yellow Card Link E45329-549531

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**15**	cm³/10min	ISO 1133
Temperature	**260**	°C	-
Load	**2.16**	kg	-
Density of melt	**1060**	kg/m³	-
Thermal conductivity of melt	**0.24**	W/(m K)	-
Spec. heat capacity of melt	**2050**	J/(kg K)	-
Ejection temperature	**94**	°C	-
ASTM Data			
Melt Flow Index, MFI	**18**	g/10min	ASTM D 1238
Temperature	**260**	°C	-
Load	**2.16**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2600**	MPa	ISO 527
Yield stress	**65**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**50**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2500**	MPa	ISO 178
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**22**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**10**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C, 4mm	**N**	kJ/m²	ISO 180/1U
Izod impact strength, -30°C, 4mm	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	**25**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**10**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2600**	MPa	ASTM D 638
Tensile Strength at Yield	**65**	MPa	ASTM D 638
Tensile Strength at Break	**58**	MPa	ASTM D 638
Elongation at Yield	**4.1**	%	ASTM D 638
Elongation at Break	**100**	%	ASTM D 638
Flexural Modulus	**2500**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**700**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**175**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**93**	°C	ISO 75-1/-2
Vicat softening temperature, B	**110**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**113**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**77**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**77**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.4**	mm	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**1.5**	mm	-
Thermal Conductivity	**0.2**	W/(m K)	DIN 52616

Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-
ASTM Data			
DTUL @ 66 psi	**100**	°C	ASTM D 648
DTUL @ 264 psi	**89**	°C	ASTM D 648
Vicat Temperature	**110**	°C	ASTM D 1525

Electrical properties	**Value**	**Unit**	**Test Standard**
ISO Data			
Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
Surface resistivity	**>1E15**	Ohm	IEC 62631-3-2
Electric strength	**35**	kV/mm	IEC 60243-1

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.2**	%	Sim. to ISO 62
Humidity absorption	**0.1**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Density	**1190**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**80 - 90**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**250 - 300**	°C	-
Mold temperature	**60 - 85**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**230 - 280**	°C	-
Zone 2	**240 - 290**	°C	-
Zone 3	**250 - 300**	°C	-

Characteristics

Processing
Injection Molding

Additives
Flame retarding agent

Special Characteristics
Flame retardant

Chemical Resistance
General Chemical Resistance

Applications
Automotive

Regional Availability
Europe