CYCOLOY™ FR Resin CX2142ME - Europe

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

Product Texts

CYCOLOY CX2142ME Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an injection moldable, high flow, non chlorinated/brominated flame retardant grade. It has a UL94 V0@1.2mm and 5VB@2.0mm flame rating. This grade has improved chemical resistance compared to standard PC/ABS blends and is a good candidate for thin wall applications and hospital/medical equipment.

UL Yellow Card Link E45329-546803

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**21**	cm³/10min	ISO 1133
Temperature	**260**	°C	-
Load	**2.16**	kg	-
Density of melt	**1070**	kg/m³	-
Thermal conductivity of melt	**0.26**	W/(m K)	-
Spec. heat capacity of melt	**1920**	J/(kg K)	-
Ejection temperature	**93**	°C	-
ASTM Data			
Melt Flow Index, MFI	**22.5**	g/10min	ASTM D 1238
Temperature	**260**	°C	-
Load	**2.16**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2700**	MPa	ISO 527
Yield stress	**61**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**51**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2500**	MPa	ISO 178
Charpy notched impact strength, +23°C, 3mm	**15**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**10**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 3mm	**15**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**10**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2900**	MPa	ASTM D 638
Tensile Strength at Yield	**64**	MPa	ASTM D 638
Tensile Strength at Break	**54**	MPa	ASTM D 638
Elongation at Yield	**4**	%	ASTM D 638
Elongation at Break	**90**	%	ASTM D 638
Flexural Modulus	**2700**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**600**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**120**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**84**	°C	ISO 75-1/-2
Vicat softening temperature, B	**102**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**102**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**75**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**75**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.2**	mm	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**2.0**	mm	-
Thermal Conductivity	**0.2**	W/(m K)	DIN 52616
ASTM Data			
DTUL @ 66 psi	**94**	°C	ASTM D 648
DTUL @ 264 psi	**84**	°C	ASTM D 648

Vicat Temperature	**102**	°C	ASTM D 1525

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.2**	%	Sim. to ISO 62
Humidity absorption	**0.1**	%	Sim. to ISO 62
Density	**1190**	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	**3 - 4**	h	-
Processing humidity	**≤0.04**	%	-
Melt temperature	**245 - 275**	°C	-
Mold temperature	**60 - 80**	°C	-
Zone 1	**220 - 255**	°C	-
Zone 2	**220 - 265**	°C	-
Zone 3	**245 - 275**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Additives
Flame retarding agent

Special Characteristics
Flame retardant

Chemical Resistance
General Chemical Resistance

Regional Availability
Europe