

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 [E121562-546902](https://www.ul.com/yellow-card/E121562-546902)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	21	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
Density of melt	1070	kg/m ³	-
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			
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/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	10	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 3mm	15	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	10	kJ/m ²	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			
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

CYCOLOY™ FR Resin CX2142ME - Americas
(PC+ABS)

Saudi Basic Industries Corporation (SABIC)

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/m ³	ISO 1183
Density	1190	kg/m ³	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

North America