

Product Texts

CYCOLOY CX7211 Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an injection moldable, medium flow, non chlorinated/brominated flame retardant grade. It has a UL94 V0@1.5mm, 5VA@2.5mm 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.

UL Yellow Card Link [F121562-474680](https://www.ul.com/yellow-card/F121562-474680)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	14	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
Density of melt	1060	kg/m ³	-
Thermal conductivity of melt	0.23	W/(m K)	-
Spec. heat capacity of melt	2150	J/(kg K)	-
Ejection temperature	87	°C	-
ASTM Data			
Melt Flow Index, MFI	15.5	g/10min	ASTM D 1238
Temperature	260	°C	-
Load	2.16	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2800	MPa	ISO 527
Yield stress	62	MPa	ISO 527
Yield strain	4	%	ISO 527
Stress at break	55	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2500	MPa	ISO 178
Charpy notched impact strength, +23°C, 3mm	40	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	40	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	10	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2950	MPa	ASTM D 638
Tensile Strength at Yield	66	MPa	ASTM D 638
Tensile Strength at Break	60	MPa	ASTM D 638
Elongation at Yield	4	%	ASTM D 638
Elongation at Break	98	%	ASTM D 638
Flexural Modulus	2750	MPa	ASTM D 790
Izod Impact notched, 1/8 in	625	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	125	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	90	°C	ISO 75-1/-2
Vicat softening temperature, B	105	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	105	°C	ISO 306
Coeff. of linear therm. expansion, parallel	77	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	82	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. at thickness h	V-1	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
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12

CYCOLOY™ FR Resin CX7211 - Americas

(PC+ABS)

Saudi Basic Industries Corporation (SABIC)

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 (1)	1	mm	-
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	94	°C	ASTM D 648
DTUL @ 264 psi	89	°C	ASTM D 648
Vicat Temperature	105	°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	0.24	%	Sim. to ISO 62
Humidity absorption	0.12	%	Sim. to ISO 62
Density	1190	kg/m ³	ISO 1183
Density	1180	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