

CYCOLOY™ FR Resin RCM6123

(PC+ABS)

Saudi Basic Industries Corporation (SABIC)

Product Texts

CYCOLOY RCM6123 resin is based on Polycarbonate + ABS (PC+ABS) blend containing mineral and is non-brominated and non-chlorinated flame retardant. It contains 30% post-consumer recycle content with a UL-94 V0 rating @ 1.2mm. This grade is suitable for thin wall applications that require high flow and high stiffness performance.

UL Yellow Card Link: [E207780-100634986](https://www.ul.com/yellow-card/E207780-100634986)

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	11	g/10min	ASTM D 1238
Temperature	260	°C	-
Load	2.16	kg	-
Mold Shrinkage, MD	0.0035	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	4500	MPa	ISO 527
Yield stress	55	MPa	ISO 527
Yield strain	3.8	%	ISO 527
Stress at break	35	MPa	ISO 527
Strain at break	30	%	ISO 527
Flexural modulus, 23°C	4400	MPa	ISO 178
Charpy notched impact strength, +23°C, 3mm	5	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	5	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	4400	MPa	ASTM D 638
Tensile Strength at Yield	50	MPa	ASTM D 638
Tensile Strength at Break	40	MPa	ASTM D 638
Elongation at Yield	3.3	%	ASTM D 638
Elongation at Break	26	%	ASTM D 638
Flexural Modulus	4300	MPa	ASTM D 790
Izod Impact notched, 1/8 in	60	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	85	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	62	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	78	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	1.2	mm	-
Yellow Card available	yes	-	-
ASTM Data			
Coefficient of Thermal Expansion, MD	42	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	49	E-6/K	ASTM D 696
DTUL @ 66 psi	91	°C	ASTM D 648
DTUL @ 264 psi	82	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
ISO Data			
Comparative tracking index	325	-	IEC 60112

Other properties	Value	Unit	Test Standard
Humidity absorption	0.04	%	Sim. to ISO 62
Density	1300	kg/m ³	ISO 1183
Density	1300	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 90	°C	-

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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	-
Nozzle temperature	245 - 275	°C	-
Screw speed	40 - 70	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Halogen-free

Certifications

Recycled Resin Content

Applications

Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific