CYCOLOY™ non-FR Resin CX5430

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

Product Texts

CYCOLOY CX5430 resin is a general purpose Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend developed for thin wall applications requiring weld line strength, high flow and impact together with a good balance of other properties.

UL Yellow Card Link: E45329-548607
UL Yellow Card Link1: E121562-591653
UL Yellow Card Link2: E207780-563407

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**18**	cm³/10min	ISO 1133
Temperature	**260**	°C	-
Load	**5**	kg	-
ASTM Data			
Melt Flow Index, MFI	**19**	g/10min	ASTM D 1238
Temperature	**260**	°C	-
Load	**5**	kg	-
Mold Shrinkage, MD	**0.006**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2400**	MPa	ISO 527
Yield stress	**48**	MPa	ISO 527
Yield strain	**5**	%	ISO 527
Stress at break	**44**	MPa	ISO 527
Strain at break	**>50**	%	ISO 527
Flexural modulus, 23°C	**2300**	MPa	ISO 178
Charpy notched impact strength, +23°C, 3mm	**40**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**20**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**40**	kJ/m²	ISO 180/1A
Izod notched impact strength	**20**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
Rockwell hardness	**L 90**	-	ISO 2039-2
ASTM Data			
Tensile Modulus	**2400**	MPa	ASTM D 638
Tensile Strength at Yield	**50**	MPa	ASTM D 638
Tensile Strength at Break	**45**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**50**	%	ASTM D 638
Flexural Modulus	**2300**	MPa	ASTM D 790
Taber Abrasion Resistance	**70**	mg/1000 cycles	ASTM D 1044
Izod Impact notched, 1/8 in	**500**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**250**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**95**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**117**	°C	ISO 75-1/-2
Vicat softening temperature, B	**114**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**80**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**80**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**1.0**	mm	-
ASTM Data			
UL 94 Flame rating	**HB**	-	UL 94
Thickness tested	**1**	mm	-
Coefficient of Thermal Expansion, MD	**80**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**80**	E-6/K	ASTM D 696
DTUL @ 66 psi	**115**	°C	ASTM D 648

DTUL @ 264 psi	**95**	°C	ASTM D 648
Vicat Temperature	**115**	°C	ASTM D 1525
Thermal Conductivity, solid state	**0.2**	W/(m K)	ASTM C 177

Electrical properties	**Value**	**Unit**	**Test Standard**
ISO Data			
Dissipation factor, 1MHz	**110**	E-4	IEC 62631-2-1
Electric strength	**25**	kV/mm	IEC 60243-1
ASTM Data			
Surface Resistivity	**1E15**	Ohm	ASTM D 257
Volume Resistivity	**1E15**	Ohm*cm	ASTM D 257

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.3**	%	Sim. to ISO 62
Humidity absorption	**0.07**	%	Sim. to ISO 62
Density	**1150**	kg/m³	ISO 1183
Density	**1150**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**100 - 110**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**260 - 290**	°C	-
Mold temperature	**60 - 90**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**230 - 260**	°C	-
Zone 2	**250 - 290**	°C	-
Zone 3	**250 - 290**	°C	-
Nozzle temperature	**240 - 280**	°C	-

Characteristics

Processing
Injection Molding

Regional Availability
North America, Europe, Asia Pacific, South and Central America

Applications
Electrical and Electronical, General Purpose, Medical, Packaging, Sports Equipment