

## SABIC Innovative Plastics Cycloy® CY6414 PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Flame retardant modified PC blend using non-brominated and non-chlorinated flame retardant systems, offering high heat for application in appliances, lighting and electrical market.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Cycloy-CY6414-PC-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cycloy-CY6414-PC-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Density	1.18 g/cc	0.0426 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.100 %	0.100 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.30 %	0.30 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0080 cm/cm @Thickness 3.20 mm	0.0040 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Index of Compound	13 g/10 min @Load 5.00 kg, Temperature 260 °C	13 g/10 min @Load 11.0 lb, Temperature 500 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	62.0 MPa	8990 psi	Type I, 50 mm/min; ASTM D638
	67.0 MPa	9720 psi	50 mm/min; ISO 527
Tensile Strength, Yield	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D638
	66.0 MPa	9570 psi	50 mm/min; ISO 527
Elongation at Break	85 %	85 %	Type I, 50 mm/min; ASTM D638
	>= 100 %	>= 100 %	50 mm/min; ISO 527
Elongation at Yield	5.7 %	5.7 %	50 mm/min; ISO 527
	6.0 %	6.0 %	Type I, 50 mm/min; ASTM D638
Tensile Modulus	2.33 GPa	338 ksi	5 mm/min; ASTM D638
	2.42 GPa	351 ksi	1 mm/min; ISO 527
Flexural Yield Strength	96.0 MPa	13900 psi	2 mm/min; ISO 178
Flexural Modulus	2.47 GPa	358 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)			80*10*4; ISO 180/1A

Mechanical Properties	50.0 kJ/m <sup>2</sup> Metric	23.8 ft-lb/in <sup>2</sup> English	Comments
	12.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*4; ISO 180/1A
	14.0 kJ/m <sup>2</sup> @Temperature 0.000 °C	6.66 ft-lb/in <sup>2</sup> @Temperature 32.0 °F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	NB	NB	80*10*4; ISO 180/1U
Charpy Impact, Notched	2.80 J/cm <sup>2</sup>	13.3 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	1.20 J/cm <sup>2</sup> @Temperature -30.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	1.70 J/cm <sup>2</sup> @Temperature 0.000 °C	8.09 ft-lb/in <sup>2</sup> @Temperature 32.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 µm/m-°C @Temperature -40.0 - 40.0 °C	38.9 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C @Temperature -40.0 - 40.0 °C	38.9 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	116 °C	241 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	118 °C @Thickness 6.40 mm	244 °F @Thickness 0.252 in	unannealed; ASTM D648
Vicat Softening Point	133 °C	271 °F	Rate B/50; ISO 306
	134 °C	273 °F	Rate B/120; ISO 306
UL RTI, Electrical	105 °C	221 °F	UL 746B
UL RTI, Mechanical with Impact	95.0 °C	203 °F	UL 746B
UL RTI, Mechanical without Impact	100 °C	212 °F	UL 746B
Flammability, UL94	V-0 @Thickness 1.20 mm	V-0 @Thickness 0.0472 in	UL 94
	5VB @Thickness 2.50 mm	5VB @Thickness 0.0984 in	UL 94

Thermal Properties	Metric	English	Comments
Glow Wire Test	775 °C	1430 °F	IEC 60695-2-13
	775 °C	1430 °F	IEC 60695-2-13
	775 °C	1430 °F	IEC 60695-2-13
	960 °C @Thickness 0.750 mm	1760 °F @Thickness 0.0295 in	IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Surface Resistance	>= 4.00e+16 ohm	>= 4.00e+16 ohm	ROA; IEC 60093
Dielectric Constant	2.95	2.95	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.01	3.01	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dissipation Factor	0.0017	0.0017	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
	0.0088	0.0088	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.0088	0.0088	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	175 - 250 V	175 - 250 V	UL 746A
Hot Wire Ignition, HWI	30 - 60 sec	30 - 60 sec	UL 746A
High Amp Arc Ignition, HAI	60 - 120 arcs	60 - 120 arcs	UL 746A

Descriptive Properties	Value	Comments
Ball Pressure Test, 125°C +/- 2°C	Pass	IEC 60695-10-2
Ball Pressure Test, 125°C +/- 2°C, by VDE	Pass	IEC 60695-10-2

**Contact Songhan Plastic Technology Co.,Ltd.**

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China