

SABIC Innovative Plastics Cycloy® C3650 PC+ABS (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , ABS Polymer , Polycarbonate/ABS Alloy, Unreinforced , Polycarbonate (PC)

Material Notes:

Flame retardant PC/ABS blend using non-brominated and non-chlorinated flame retardant systems, offering high impact and excellent extrusion and thermoforming characteristics. Halogen free according to DIN VDE 0472/815 for cable channels. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cycloy-C3650-PCABS-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D 792
Density	1.18 g/cc	0.0426 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.20 %	0.20 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.60 %	0.60 %	ASTM D 570
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.60 %	0.60 %	ISO 62
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	on tensile bar; SABIC Method
	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	8.0 g/10 min	8.0 g/10 min	[cm ³ /10 min] Melt Volume Rate; ISO 1133
	@Load 5.00 kg, Temperature 260 °C	@Load 11.0 lb, Temperature 500 °F	
	8.5 g/10 min	8.5 g/10 min	ASTM D 1238
	@Load 5.00 kg, Temperature 260 °C	@Load 11.0 lb, Temperature 500 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	124	124	ISO 2039-2
Hardness, H358/30	113 MPa	16400 psi	ISO 2039-1
Tensile Strength at Break	50.0 MPa	7250 psi	5 mm/min; ISO 527
	51.0 MPa	7400 psi	Type I, 50 mm/min; ASTM D 638

Mechanical Properties	55.0 MPa Metric	7980 psi English	50 mm/min; ISO 527 Comments
Tensile Strength, Yield	55.0 MPa	7980 psi	5 mm/min; ISO 527
	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D 638
	65.0 MPa	9430 psi	50 mm/min; ISO 527
Elongation at Break	35 %	35 %	Type I, 50 mm/min; ASTM D 638
	>= 50 %	>= 50 %	50 mm/min; ISO 527
	55 %	55 %	5 mm/min; ISO 527
Elongation at Yield	3.0 %	3.0 %	5 mm/min; ISO 527
	4.5 %	4.5 %	50 mm/min; ISO 527
	4.9 %	4.9 %	Type I, 50 mm/min; ASTM D 638
Tensile Modulus	2.60 GPa	377 ksi	1 mm/min; ISO 527
	2.86 GPa	415 ksi	50 mm/min; ASTM D 638
Flexural Yield Strength	100 MPa	14500 psi	2 mm/min; ISO 178
	101 MPa	14600 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.68 GPa	389 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	2.70 GPa	392 ksi	2 mm/min; ISO 178
Izod Impact, Notched	6.94 J/cm @Temperature 23.0 °C	13.0 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	13.0 kJ/m² @Temperature -30.0 °C	6.19 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
	13.0 kJ/m² @Temperature -30.0 °C	6.19 ft-lb/in² @Temperature -22.0 °F	80*10*4; ISO 180/1A
	15.0 kJ/m² @Temperature 0.000 °C	7.14 ft-lb/in² @Temperature 32.0 °F	80*10*4; ISO 180/1A
	45.0 kJ/m² @Temperature 23.0 °C	21.4 ft-lb/in² @Temperature 73.4 °F	80*10*4; ISO 180/1A
	50.0 kJ/m² @Temperature 23.0 °C	23.8 ft-lb/in² @Temperature 73.4 °F	80*10*3; ISO 180/1A

Charpy Impact, Notched Mechanical Properties	1.30 J/cm ² Metric	6.19 ft-lb/in ² English	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.30 J/cm ²	6.19 ft-lb/in ²	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	4.80 J/cm ²	22.8 ft-lb/in ²	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	5.00 J/cm ²	23.8 ft-lb/in ²	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Impact Test	64.0 J	47.2 ft-lb	Instrumented Impact Total Energy; ASTM D 3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Taber Abrasion, mg/1000 Cycles	54	54	CS-17; SABIC Method
	@Load 1.00 kg	@Load 2.20 lb	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	72.0 µm/m-°C	40.0 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	75.0 µm/m-°C	41.7 µin/in-°F	ISO 11359-2
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 60.0 °C	@Temperature 73.4 - 140 °F	
CTE, linear, Transverse to Flow	72.0 µm/m-°C	40.0 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	75.0 µm/m-°C	41.7 µin/in-°F	ISO 11359-2
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 60.0 °C	@Temperature 73.4 - 140 °F	
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft ² -°F	ISO 8302
Hot Ball Pressure Test	<= 95.0 °C	<= 203 °F	IEC 60695-10-2
Deflection Temperature at 0.46 MPa	102 °C	216 °F	Edgew 120*10*4 sp=100mm; ISO

Thermal Properties	Metric	English	Comments
	100 °C	212 °F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	91.0 °C	196 °F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	88.0 °C	190 °F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	108 °C	226 °F	Rate B/50; ISO 306
	110 °C	230 °F	Rate B/120; ISO 306
	110 °C	230 °F	Rate B/50; ASTM D 1525
UL RTI, Electrical	60.0 °C	140 °F	UL 746B
UL RTI, Mechanical with Impact	60.0 °C	140 °F	UL 746B
UL RTI, Mechanical without Impact	60.0 °C	140 °F	UL 746B
Flammability, UL94	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL 94
	5VB	5VB	
	@Thickness 2.50 mm	@Thickness 0.0984 in	UL 94

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant	2.7	2.7	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
	2.8	2.8	
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	17.0 kV/mm	432 kV/in	
	@Thickness 3.20 mm	@Thickness 0.126 in	in oil; IEC 60243-1
	25.0 kV/mm	635 kV/in	
	@Thickness 1.60 mm	@Thickness 0.0630 in	in oil; IEC 60243-1
	35.0 kV/mm	889 kV/in	
			in oil; IEC 60243-1

Electrical Properties	@Thickness 0.800 mm Metric	@Thickness 0.0315 in English	Comments
Dissipation Factor	0.0040	0.0040	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.0060	0.0060	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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