

## SABIC Innovative Plastics Cycloy® C2950HF PC+ABS

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

### Material Notes:

Non-chlorinated and non-brominated flame retardant PC/ABS offering balanced impact and heat properties plus improved flow for various applications.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Cycloy-C2950HF-PCABS.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cycloy-C2950HF-PCABS.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.18 g/cc	1.18 g/cc	ASTM D792
Water Absorption	0.10 % @Time 86400 sec	0.10 % @Time 24.0 hour	ASTM D570
Moisture Absorption at Equilibrium	0.40 %	0.40 %	ASTM D570
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm @Thickness 3.20 mm	0.0040 - 0.0060 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0040 - 0.0060 cm/cm @Thickness 3.20 mm	0.0040 - 0.0060 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	22 g/10 min @Load 2.16 kg, Temperature 260 °C	22 g/10 min @Load 4.76 lb, Temperature 500 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	121	121	ASTM D785
Tensile Strength, Yield	64.0 MPa	9280 psi	Type I, 50 mm/min; ASTM D638
Elongation at Break	40 %	40 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	5.0 %	5.0 %	Type I, 50 mm/min; ASTM D638
Flexural Yield Strength	96.0 MPa	13900 psi	2.6 mm/min, 100 mm span; ASTM D790
Flexural Modulus	2.58 GPa	374 ksi	2.6 mm/min, 100 mm span; ASTM D790
Izod Impact, Notched	4.53 J/cm	8.49 ft-lb/in	ASTM D256
Dart Drop, Total Energy	54.0 J	39.8 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	72.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	40.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
	@Temperature -30.0 - 30.0 $^{\circ}\text{C}$	@Temperature -22.0 - 86.0 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	72.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	40.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
	@Temperature -30.0 - 30.0 $^{\circ}\text{C}$	@Temperature -22.0 - 86.0 $^{\circ}\text{F}$	
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft <sup>2</sup> - $^{\circ}\text{F}$	ASTM C177
Deflection Temperature at 0.46 MPa (66 psi)	101 $^{\circ}\text{C}$	214 $^{\circ}\text{F}$	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Deflection Temperature at 1.8 MPa (264 psi)	87.0 $^{\circ}\text{C}$	189 $^{\circ}\text{F}$	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
	93.0 $^{\circ}\text{C}$	199 $^{\circ}\text{F}$	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Vicat Softening Point	112 $^{\circ}\text{C}$	234 $^{\circ}\text{F}$	Rate B/50; ASTM D1525
UL RTI, Electrical	85.0 $^{\circ}\text{C}$	185 $^{\circ}\text{F}$	UL 746B
UL RTI, Mechanical with Impact	85.0 $^{\circ}\text{C}$	185 $^{\circ}\text{F}$	UL 746B
UL RTI, Mechanical without Impact	85.0 $^{\circ}\text{C}$	185 $^{\circ}\text{F}$	UL 746B
Flammability, UL94	V-2	V-2	UL 94
	@Thickness 0.760 mm	@Thickness 0.0299 in	
	V-0	V-0	UL 94
	@Thickness 1.49 mm	@Thickness 0.0587 in	
	5VB	5VB	UL 94
	@Thickness 2.48 mm	@Thickness 0.0976 in	
	5VA	5VA	UL 94
	@Thickness 3.40 mm	@Thickness 0.134 in	
Oxygen Index	30 %	30 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.60e+17 ohm-cm	1.60e+17 ohm-cm	ASTM D257
Surface Resistance	$\geq 1.00\text{e}+16$ ohm	$\geq 1.00\text{e}+16$ ohm	ASTM D257

Electrical Properties	Metric	English	Comments
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	2.8	2.8	ASTM D150
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	24.3 kV/mm	617 kV/in	in oil; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0052	0.0052	ASTM D150
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.0071	0.0071	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	60 - 120 sec	60 - 120 sec	Tungsten; ASTM D495
Comparative Tracking Index	250 - 400 V	250 - 400 V	UL 746A
Hot Wire Ignition, HWI	30 - 60 sec	30 - 60 sec	UL 746A
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	80.0 - 150 mm/min	3.15 - 5.91 in/min	UL 746A

## Contact Songhan Plastic Technology Co.,Ltd.

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