

SABIC Innovative Plastics Cycolac® FR15 ABS

Category : Polymer , Thermoplastic , ABS Polymer

Material Notes:

Flame retardant ABS (non-PBBE additive). Good property/toughness. Excellent moldability. UL94 V-0/5VA rated.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cycolac-FR15-ABS.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792
Density	1.19 g/cc	0.0430 lb/in ³	ISO 1183
Viscosity	290000 cP	290000 cP	Melt Viscosity, 200°C, 1000 sec-1; ASTM D3825
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	4.0 g/10 min @Load 3.80 kg, Temperature 230 °C	4.0 g/10 min @Load 8.38 lb, Temperature 446 °F	ASTM D1238
	10 g/10 min @Load 5.00 kg, Temperature 220 °C	10 g/10 min @Load 11.0 lb, Temperature 428 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	31.0 MPa	4500 psi	50 mm/min; ISO 527
	35.0 MPa	5080 psi	Type I, 5 mm/min; ASTM D638
Tensile Strength, Yield	41.0 MPa	5950 psi	Type I, 5 mm/min; ASTM D638
	41.0 MPa	5950 psi	50 mm/min; ISO 527
Elongation at Break	9.0 %	9.0 %	Type I, 5 mm/min; ASTM D638
	33.5 %	33.5 %	50 mm/min; ISO 527
Elongation at Yield	2.1 %	2.1 %	50 mm/min; ISO 527
	2.3 %	2.3 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	2.34 GPa	339 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	71.0 MPa	10300 psi	1.3 mm/min, 50 mm span; ASTM D790

Flexural Modulus Mechanical Properties	2.72 GPa Metric	395 ksi English	1.3 mm/min, 50 mm span; ASTM D790 Comments
Izod Impact, Notched	2.13 J/cm	3.99 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	18.0 kJ/m ²	8.57 ft-lb/in ²	80*10*4; ISO 180/1A
	6.00 kJ/m ² @Temperature -30.0 °C	2.86 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	1.90 J/cm ²	9.04 ft-lb/in ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	33.0 J @Temperature 23.0 °C	24.3 ft-lb @Temperature 73.4 °F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	84.6 µm/m-°C @Temperature -40.0 - 40.0 °C	47.0 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
CTE, linear, Transverse to Flow	86.4 µm/m-°C @Temperature -40.0 - 40.0 °C	48.0 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
Deflection Temperature at 0.46 MPa (66 psi)	82.0 °C @Thickness 3.20 mm	180 °F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	73.0 °C	163 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	70.0 °C @Thickness 3.20 mm	158 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	81.0 °C	178 °F	Rate B/50; ISO 306
	84.0 °C	183 °F	Rate B/120; ISO 306
	86.0 °C	187 °F	Rate B/50; ASTM D1525
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 @Thickness 1.49 mm	V-0 @Thickness 0.0587 in	UL 94
	5VA	5VA	UL 94

Thermal Properties	@Thickness 2.48 mm Metric	@Thickness 0.0976 in English	Comments
Electrical Properties	Metric	English	Comments
Arc Resistance	0.00 - 60 sec	0.00 - 60 sec	Tungsten; ASTM D495
Comparative Tracking Index	250 - 400 V	250 - 400 V	UL 746A
Hot Wire Ignition, HWI	15 - 30 sec	15 - 30 sec	UL 746A
High Amp Arc Ignition, HAI	0.00 - 15 arcs	0.00 - 15 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	>= 150 mm/min	>= 5.91 in/min	UL 746A

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