

SABIC Innovative Plastics Cyclac® HMG47MD ABS

Category : Polymer , Thermoplastic , ABS Polymer

Material Notes:

General purpose, injection molding ABS for medical applications. Biocompatible (ISO10993). FDA compliant. Gamma & EtO sterilizable.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Cyclac-HMG47MD-ABS.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.05 g/cc	1.05 g/cc	ASTM D792
Density	1.05 g/cc	0.0379 lb/in ³	ISO 1183
Linear Mold Shrinkage, Flow	0.0050 - 0.0080 cm/cm	0.0050 - 0.0080 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	5.6 g/10 min	5.6 g/10 min	ASTM D1238
	@Load 3.80 kg, Temperature 230 °C	@Load 8.38 lb, Temperature 446 °F	
	19 g/10 min	19 g/10 min	ISO 1133
	@Load 10.0 kg, Temperature 220 °C	@Load 22.0 lb, Temperature 428 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	33.0 MPa	4790 psi	Type I, 5 mm/min; ASTM D638
	35.0 MPa	5080 psi	5 mm/min; ISO 527
Tensile Strength, Yield	44.0 MPa	6380 psi	Type I, 5 mm/min; ASTM D638
	50.0 MPa	7250 psi	5 mm/min; ISO 527
Elongation at Break	24 %	24 %	Type I, 5 mm/min; ASTM D638
	24.8 %	24.8 %	5 mm/min; ISO 527
Elongation at Yield	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D638
	2.6 %	2.6 %	5 mm/min; ISO 527
Tensile Modulus	2.27 GPa	329 ksi	5 mm/min; ASTM D638
	2.53 GPa	367 ksi	1 mm/min; ISO 527
Flexural Yield Strength	72.0 MPa	10400 psi	1.3 mm/min, 50 mm span; ASTM D790
	76.0 MPa	11000 psi	2 mm/min; ISO 178

Mechanical Properties	Metric	English	Comments
Flexural Modulus	2.34 GPa	339 ksi	10 mm/min, 50 mm span; ASTM D790
	2.41 GPa	350 ksi	2 mm/min; ISO 178
Izod Impact, Notched	3.20 J/cm	5.99 ft-lb/in	ASTM D256
	1.33 J/cm	2.49 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	23.0 kJ/m²	10.9 ft-lb/in²	80*10*4; ISO 180/1A
	8.00 kJ/m²	3.81 ft-lb/in²	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Dart Drop, Total Energy	30.0 J	22.1 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	88.2 µm/m-°C	49.0 µin/in-°F	ISO 11359-2
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	88.2 µm/m-°C	49.0 µin/in-°F	ISO 11359-2
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
Deflection Temperature at 0.46 MPa (66 psi)	94.0 °C	201 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	80.0 °C	176 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	80.0 °C	176 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	98.0 °C	208 °F	Rate B/50; ASTM D1525
	100 °C	212 °F	Rate B/50; ISO 306

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