

SABIC Innovative Plastics Cyclac® G366 ABS (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), Molded

Material Notes:

CYCOLAC G366 is a "new technology" grade of ABS exhibiting outstanding property balance, a good flow, medium impact, medium to high heat resistant and an excellent stability during injection moulding. It is recommended for large or complex parts in automotive, electrical power tool segments and consumer industry. 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-Cyclac-G366-ABS-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.20 %	0.20 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	1.0 % @Temperature 23.0 °C	1.0 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on tensile bar; SABIC Method
Melt Flow	8.0 g/10 min @Load 10.0 kg, Temperature 220 °C	8.0 g/10 min @Load 22.0 lb, Temperature 428 °F	ISO 1133
	8.0 g/10 min @Load 10.0 kg, Temperature 220 °C	8.0 g/10 min @Load 22.0 lb, Temperature 428 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	115	115	ISO 2039-2
Hardness, H358/30	99.0 MPa	14400 psi	ISO 2039-1
Tensile Strength at Break	30.0 MPa	4350 psi	5 mm/min; ISO 527
	40.0 MPa	5800 psi	50 mm/min; ISO 527
Tensile Strength, Yield	45.0 MPa	6530 psi	5 mm/min; ISO 527
	50.0 MPa	7250 psi	50 mm/min; ISO 527
Elongation at Break	15 %	15 %	5 mm/min; ISO 527
	15 %	15 %	50 mm/min; ISO 527
Elongation at Yield	2.0 %	2.0 %	5 mm/min; ISO 527
	3.0 %	3.0 %	50 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Tensile Modulus	2.60 GPa	377 ksi	1 mm/min; ISO 527
Flexural Yield Strength	74.0 MPa	10700 psi	2 mm/min; ISO 178
Flexural Modulus	2.60 GPa	377 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	6.00 kJ/m ²	2.86 ft-lb/in ²	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	12.0 kJ/m ²	5.71 ft-lb/in ²	80*10*4; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.700 J/cm ²	3.33 ft-lb/in ²	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.20 J/cm ²	5.71 ft-lb/in ²	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Taber Abrasion, mg/1000 Cycles	100	100	CS-17; SABIC Method
	@Load 1.00 kg	@Load 2.20 lb	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	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	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
Deflection Temperature at 0.46 MPa (66 psi)	96.0 °C	205 °F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	82.0 °C	180 °F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	106 °C	223 °F	Rate B/50; ISO 306
	108 °C	226 °F	
UL RTI, Electrical	80.0 °C	176 °F	UL 746B
UL RTI, Mechanical with Impact	80.0 °C	176 °F	UL 746B
UL RTI, Mechanical without Impact	80.0 °C	176 °F	UL 746B
Flammability, UL94	HB	HB	UL 94

Thermal Properties	@Thickness 1.50 mm Metric	@Thickness 0.0591 in English	Comments
	HB	HB	2nd value; UL 94
	@Thickness 3.00 mm	@Thickness 0.118 in	
Flame Spread	25.0 mm/min	0.984 in/min	FMVSS 302
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Glow Wire Test	650 °C	1200 °F	Glow Wire Flammability Index; IEC 60695-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	
	750 °C	1380 °F	Glow Wire Flammability Index; IEC 60695-2-12
	@Thickness 1.00 mm	@Thickness 0.0394 in	

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	2.8	2.8	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	2.9	2.9	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	18.0 kV/mm	457 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	
	26.0 kV/mm	660 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
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Dissipation Factor	0.011	0.011	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.014	0.014	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	575 V	575 V	IEC 60112

Descriptive Properties	Value	Comments
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Descriptive Properties ¹ +/- 2 °C

Value ² S

Comments ¹⁰⁻²

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