

CYCOLOY* LG9000 Resin

General Information

Product Description

PC+ABS blend, low gloss and UV-stable, suitable for automotive interior applications.

General

Material Status	• Commercial: Active
Availability	• North America
Features	• Good UV Resistance • Low Gloss
Uses	• Automotive Interior Parts
Processing Method	• Injection Molding
Multi-Point Data	• Coefficient of Thermal Expansion vs. Temperature (ASTM E831) • Flexural DMA (ASTM D4065) • Instrumented Impact (Energy) (ASTM D3763) • Instrumented Impact (Load) (ASTM D3763) • Pressure-Volume-Temperature (PVT - Zoller Method) • Shear DMA (ASTM D4065) • Specific Heat vs. Temperature (ASTM D3417) • Tensile Creep (ASTM D2990) • Tensile Fatigue • Tensile Stress vs. Strain (ASTM D638) • Thermal Conductivity vs. Temperature (ASTM E1530) • Viscosity vs. Shear Rate (ASTM D3835)

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.13	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	17	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Molding Shrinkage - Across Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption (24 hr)	0.10	%	ASTM D570
Water Absorption (Equilibrium, 23°C)	0.40	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	54.5	MPa	ASTM D638
Tensile Elongation ² (Break)	75	%	ASTM D638
Flexural Modulus ³ (50.0 mm Span)	2310	MPa	ASTM D790
Flexural Strength ³ (Yield, 50.0 mm Span)	84.8	MPa	ASTM D790

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SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	320	J/m	
23°C	530	J/m	
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	33.9	J	
23°C, Total Energy	40.7	J	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	124	°C	
0.45 MPa, Unannealed, 6.40 mm	129	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 3.20 mm	107	°C	
1.8 MPa, Unannealed, 6.40 mm	110	°C	
Vicat Softening Temperature	129	°C	ASTM D1525 ⁴
CLTE - Flow (-20 to 150°C)	0.000072	cm/cm/°C	ASTM E831
CLTE - Transverse (-20 to 150°C)	0.000072	cm/cm/°C	ASTM E831
Thermal Conductivity	0.20	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Arc Resistance (PLC) ⁵	PLC 6		ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.50 mm)	HB		UL 94
UL	Nominal Value	Unit	Test Method
RTI Str	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI Elec	60.0	°C	UL 746
Comparative Tracking Index (CTI) (PLC)	PLC 2		UL 746
Hot-wire Ignition (HWI) (PLC)	PLC 2		UL 746
High Amp Arc Ignition (HAI) (PLC)	PLC 0		UL 746
Optical	Nominal Value	Unit	Test Method
Gardner Gloss (60°, Untextured)	30		ASTM D523

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	104 to 110	°C
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.040	%
Suggested Shot Size	30 to 80	%
Rear Temperature	249 to 288	°C
Middle Temperature	254 to 293	°C

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Injection	Nominal Value	Unit
Front Temperature	260 to 302	°C
Nozzle Temperature	274 to 302	°C
Processing (Melt) Temp	274 to 302	°C
Mold Temperature	60.0 to 87.8	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.038 to 0.076	mm

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type I, 50 mm/min

³ 1.3 mm/min

⁴ Rate B (120°C/h), Loading 2 (50 N)

⁵ Tungsten Electrode