

**CYCOLOY* C1000HF Resin**GE Plastics - *Acrylonitrile Butadiene Styrene + PC*

Unit System:

Actions[Legend \(Open\)](#)**General Information****Product Description**

High flow PC+ABS.

General

Material Status	• Commercial: Active
Availability	• North America
Test Standards Available	• ASTM
Features	• Flow, High
Automotive Specifications	• FORD WSK-M4D684-A1 • FORD WSK-M4D684-A2 • FORD WSK-M4D685-A
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Coefficient of Thermal Expansion vs. Temperature (ASTM E831) • 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 and ISO Properties ¹

Physical	Nominal Value Unit	Test Method
Density -Specific Gravity	1.12 sp gr 23/23°C	ASTM D792
Melt Mass-Flow Rate (MFR)		ASTM D1238
(230°C/3.8 kg)	7.0 g/10 min	
(260°C/5.0 kg)	24.0 g/10 min	
Mold Shrink, Linear-Flow (0.126 in)	0.0050 to 0.0070 in/in	ASTM D955
Mold Shrink, Linear-Trans (0.126 in)	0.0050 to 0.0070 in/in	ASTM D955
Water Absorption @ 24 hrs	0.10 %	ASTM D570
Water Absorption @ Equil (73 °F)	0.40 %	ASTM D570
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus ²	360000 psi	ASTM D638
Tensile Strength @ Yield ³	8400 psi	ASTM D638

Tensile Elongation @ Yld ³	5.0 %	ASTM D638
Tensile Elongation @ Brk ³	80 %	ASTM D638
Flexural Modulus (1.97 in Span) ⁴	360000 psi	ASTM D790
Flexural Strength @ Yield (1.97 in Span) ⁴	13200 psi	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256
(-22 °F)	2.00 ft·lb/in	
(73 °F)	10.0 ft·lb/in	
Instrumented Dart Impact		ASTM D3763
(-22 °F)	Total Energy: 360 in·lb	
(73 °F)	Total Energy: 480 in·lb	
Thermal	Nominal Value Unit	Test Method
DTUL @66psi - Unannealed (0.126 in)	240 °F	ASTM D648
DTUL @264psi - Unannealed (0.126 in)	210 °F	ASTM D648
CLTE, Flow (TMA) (-40 to 104°F (-40 to 40°C))	0.000040 in/in/°F	ASTM E831
Thermal Conductivity	1.4 Btu-in/hr/ft ² /°F	ASTM C177

Processing Information

Injection	Nominal Value Unit
Drying Temperature	210 to 219 °F
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	480 to 540 °F
Middle Temperature	489 to 550 °F
Front Temperature	489 to 550 °F
Nozzle Temperature	500 to 550 °F
Processing (Melt) Temp	500 to 550 °F
Mold Temperature	171 to 210 °F
Back Pressure	50.0 to 100.0 psi
Screw Speed	40 to 70 rpm
Vent Depth	0.0015 to 0.0030 in

Notes

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

² 2.0 in/min

³ Type I, 2.0 in/min

⁴ 0.051 in/min



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