

CYCOLOY* C6600 Resin

General Information

Product Description

Nonbrominated, nonchlorinated FR PC+ABS with balanced flow, impact and hydrolytic stability for a wide variety of applications including business equipment, monitors, enclosures, among others.

General

Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Flame Retardant		
Features	• Bromine Free • Chlorine Free	• Flame Retardant • Good Flow	• Good Impact Resistance • Hydrolytically Stable
Uses	• Business Equipment		
Processing Method	• Injection Molding		
Multi-Point Data	• Coefficient of Thermal Expansion vs. Temperature (ASTM E831) • Flexural DMA (ASTM D4065) • Pressure-Volume-Temperature (PVT - Zoller Method) • Shear DMA (ASTM D4065) • Specific Heat vs. Temperature (ASTM D3417) • 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	1.19	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.60	%	Internal Method
Water Absorption (24 hr)	0.11	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	3000	MPa	ASTM D638
Tensile Strength ³ (Yield)	63.0	MPa	ASTM D638
Tensile Strength ³ (Break)	49.0	MPa	ASTM D638
Tensile Elongation ³ (Yield)	4.0	%	ASTM D638
Tensile Elongation ³ (Break)	80	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	2620	MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	94.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	550	J/m	ASTM D256

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SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Impact	Nominal Value	Unit	Test Method
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	51.0	J	
23°C, Total Energy	51.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	98.0	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 3.20 mm	83.0	°C	
1.8 MPa, Unannealed, 6.40 mm	90.0	°C	
Vicat Softening Temperature	99.0	°C	ASTM D1525 ⁵
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
50 Hz	2.70		
60 Hz	2.70		
1 MHz	2.70		
Dissipation Factor			IEC 60250
50 Hz	0.0040		
60 Hz	0.0040		
1 MHz	0.0060		
Electric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
0.750 mm	V-2		
1.50 mm	V-0		
2.00 mm	5VB		
UL	Nominal Value	Unit	Test Method
RTI Str	80.0	°C	UL 746
RTI Imp	70.0	°C	UL 746
RTI Elec	80.0	°C	UL 746

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	82.0 to 88.0	°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	221 to 254	°C	
Middle Temperature	221 to 277	°C	
Front Temperature	243 to 277	°C	

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Injection	Nominal Value	Unit
Nozzle Temperature	243 to 277	°C
Processing (Melt) Temp	243 to 277	°C
Mold Temperature	60.0 to 82.0	°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 50 mm/min

³ Type I, 50 mm/min

⁴ 1.3 mm/min

⁵ Rate B (120°C/h), Loading 2 (50 N)