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Tuesday, February 15, 2005

CYCOLOY® C6200

GE Plastics - *Acrylonitrile Butadiene Styrene + PC*

Unit System: English

View

Datasheet	Shown Below
ASTM Data Sheet	
ISO Data Sheet	
CAMPUS® Data Sheet	--

Actions

Product Sourcing	
E-mail a Datasheet	
Product Alternatives	

General Information

Product Description

PC+ABS, nonchlorinated, nombrominated flame retardant. Recommended for thin-wall applications

General	
Material Status	• Commercial: Active
Availability	• North America
Test Standards Available	• ASTM • ISO
Features	• Bromine Content, None • Chlorine Content, None • Flame Retardant
Uses	• Parts, Thin-walled
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Coefficient of Thermal Expansion vs. Temperature (ASTM E831) • Elastic Modulus vs Temperature (ASTM D4065) • Flexural DMA (ASTM D4065) • 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	1.18	sp gr 23/23°C	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	14.5	g/10 min	ASTM D1238
Mold Shrink, Linear-Flow (0.126 in)	0.0040 to 0.0060	in/in	ASTM D955
Mold Shrink, Linear-Trans (0.126 in)	0.0040 to 0.0060	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength @ Yield [2]	9700	psi	ASTM D638
Tensile Elongation @ Brk [2]	50	%	ASTM D638
Flexural Modulus (3.94 in Span) [3]	390000	psi	ASTM D790
Flexural Strength @ Yield (3.94 in Span) [3]	15000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73 °F)	10.0	ft-lb/in	ASTM D256

Instrumented Dart Impact			ASTM D3763
(-22 °F)	Energy at Peak Load: 480	in-lb	
(73 °F)	Energy at Peak Load: 540	in-lb	
Thermal	**Nominal Value**	**Unit**	**Test Method**
DTUL @264psi - Unannealed			ASTM D648
(0.126 in)	190	°F	
(0.252 in)	195	°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohm-cm	IEC 60093
Dissipation Factor			IEC 60250
(50 Hz)	0.00400		
(60 Hz)	0.00400		
(1E+6 Hz)	0.00800		
Arc Resistance (PLC) (Tungsten Electrode)	PLC 6		ASTM D495
Electric Strength			IEC 60243-1
(0.0315 in, in Oil)	890	V/mil	
(0.0630 in, in Oil)	640	V/mil	
(0.126 in, in Oil)	430	V/mil	
Relative Permittivity			IEC 60250
(50 Hz)	2.80		
(60 Hz)	2.80		
(1E+6 Hz)	2.70		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating - UL			UL 94
(0.0280 in)	HB		
(0.0480 in)	V-1		
(0.0580 in)	V-0		
(0.0790 in)	5VB		
(0.134 in)	5VA		
UL 746	**Nominal Value**	**Unit**	**Test Method**
Rel Temp Indx Mech w/oImp	185	°F	UL 746
Rel Temp Indx Mech w/Imp	185	°F	UL 746
Rel Temp Indx Elect	185	°F	UL 746
Comparative Tracking Index (CTI) (PLC)	PLC 2		UL 746
High Voltage Arc Tracking Rate (HVTR) (PLC)	PLC 3		UL 746
Hot-wire Ignition (HWI) (PLC)	PLC 2		UL 746
High Amp Arc Ignition (HAI) (PLC)	PLC 0		UL 746

Additional Properties

CSA File No. (See File for Complete Listing): LS88480
Spiral Flow, 260°C,10 ips, 3.175 X 1524 mm: 685.8 mm

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	180 to 190	°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	430 to 490	°F
Middle Temperature	430 to 510	°F
Front Temperature	470 to 530	°F
Nozzle Temperature	470 to 530	°F
Processing (Melt) Temp	470 to 530	°F
Mold Temperature	140 to 180	°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	Type I, 2 in/min
3	0.1 in/min