

CYCOLOY* C6200 Resin

SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Thursday, 17 September 2009

General Information

Product Description

Non-chlorinated, nonbrominated flame retardant PC/ABS offering balanced heat, flow and impact to meet various application needs.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Ignition Resistant
Features	• Bromine Free • Chlorine Free • Flame Retardant • Good Flow • Good Impact Resistance • Medium Heat Resistance
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
Specific Gravity	1.18	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	15 g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.126 in)	0.0040 to 0.0060 in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	0.0040 to 0.0060 in/in	ASTM D955
Spiral Flow Length (500°F, 10 ips, 3.175 x 1524 mm)	27.0 in	Internal Method
Mechanical	Nominal Value Unit	Test Method
Tensile Strength ² (Yield)	9700 psi	ASTM D638
Tensile Elongation ² (Break)	50 %	ASTM D638
Flexural Modulus ³ (3.94 in Span)	390000 psi	ASTM D790
Flexural Strength ³ (Yield, 3.94 in Span)	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	

Disclaimer : THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com>. AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of SABIC Holding Europe BV

* CYCOLOY is a trademark of SABIC Innovative Plastics IPV

© 1997-2009 SABIC Innovative Plastics Holding BV. All rights reserved

CYCOLOY* C6200 Resin
SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Thursday, 17 September 2009

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
264 psi, Unannealed, 0.126 in	190 °F	
264 psi, Unannealed, 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
Relative Permittivity		IEC 60250
50 Hz	2.80	
60 Hz	2.80	
1E+6 Hz	2.70	
Dissipation Factor		IEC 60250
50 Hz	0.0040	
60 Hz	0.0040	
1E+6 Hz	0.0080	
Arc Resistance (PLC) ⁴	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	

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
RTI Str	185 °F	UL 746
RTI Imp	185 °F	UL 746
RTI Elec	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 Information	Nominal Value Unit	Test Method
CSA File No. (See file for complete listing)	LS88480	CSA

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 489 °F

Disclaimer : THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com>. AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of SABIC Holding Europe BV

* CYCOLOY is a trademark of SABIC Innovative Plastics IPV

© 1997-2009 SABIC Innovative Plastics Holding BV. All rights reserved

CYCOLOY* C6200 Resin

SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Thursday, 17 September 2009

Injection	Nominal Value Unit
Middle Temperature	430 to 531 °F
Front Temperature	469 to 531 °F
Nozzle Temperature	469 to 531 °F
Processing (Melt) Temp	469 to 531 °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, 2.0 in/min

³ 0.10 in/min

⁴ Tungsten Electrode

Disclaimer : THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com>. AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of SABIC Holding Europe BV

* CYCOLOY is a trademark of SABIC Innovative Plastics IPV

© 1997-2009 SABIC Innovative Plastics Holding BV. All rights reserved