

# CYCOLOY™ FR RESINS C6200

REGION AMERICAS

## DESCRIPTION

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

## TYPICAL PROPERTY VALUES

Revision 20200501

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	66	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	50	%	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	103	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	2680	MPa	ASTM D790
<b>IMPACT</b>			
Izod Impact, notched, 23°C	534	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	61	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, -30°C	54	J	ASTM D3763
<b>THERMAL</b>			
HDT, 1.82 MPa, 3.2mm, unannealed	87	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	90	°C	ASTM D648
Relative Temp Index, Elec	85	°C	UL 746B
Relative Temp Index, Mech w/impact	85	°C	UL 746B
Relative Temp Index, Mech w/o impact	85	°C	UL 746B
<b>PHYSICAL</b>			
Specific Gravity	1.18	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	14.5	g/10 min	ASTM D1238
Spiral Flow, 260°C, 10 ips, 3.175 X 1524 mm	685.8	mm	-
<b>ELECTRICAL</b>			
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D495
Hot Wire Ignition {PLC}	2	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
Volume Resistivity	>1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	25	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.7	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.004	-	IEC 60250
Dissipation Factor, 1 MHz	0.008	-	IEC 60250
Relative Permittivity, 50/60 Hz	2.8	-	IEC 60250

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>FLAME CHARACTERISTICS</b>			
UL Yellow Card Link	<a href="#">E121562-221037</a>	-	-
UL Recognized, 94HB Flame Class Rating	0.71	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	1.21	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	1.47	mm	UL 94
UL Recognized, 94-5VA Flame Class Rating	3.4	mm	UL 94
UL Recognized, 94-5VB Flame Class Rating	2	mm	UL 94
<b>INJECTION MOLDING</b>			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	245 – 275	°C	
Nozzle Temperature	245 – 275	°C	
Front - Zone 3 Temperature	245 – 275	°C	
Middle - Zone 2 Temperature	220 – 275	°C	
Rear - Zone 1 Temperature	220 – 255	°C	
Mold Temperature	60 – 80	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 0.076	mm	

## DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. 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.