

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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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
IMPACT			
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
THERMAL			
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
PHYSICAL			
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	-
ELECTRICAL			
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



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FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-221037	-	-
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
INJECTION MOLDING			
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	

