CYCOLOY™ C6200 resin

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

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

General Information	
UL YellowCard	E121562-221037
Additive	Flame Retardant
Features	Bromine Free
	Chlorine Free
	Flame Retardant
	Good Flow
	Good Impact Resistance
	Medium Heat Resistance
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)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	15	g/10 min	ASTM D1238
Spiral Flow	68.6	cm	Internal Method
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.40 to 0.60	%	
Across Flow : 3.20 mm	0.40 to 0.60	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [1] (Yield)	66.9	MPa	ASTM D638
Tensile Elongation [2] (Break)	50	%	ASTM D638

Flexural Modulus [3] (100 mm Span)	2690	MPa	ASTM D790
Flexural Strength [4] (Yield, 100 mm Span)	103	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	530	J/m	ASTM D256
Instrumented Dart Impact			ASTM D3763
-30°C, Energy at Peak Load	54.2	J	
23°C, Energy at Peak Load	61.0	J	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 3.20 mm	87.8	°C	
1.8 MPa, Unannealed, 6.40 mm	90.6	°C	
RTI Elec	85.0	°C	UL 746
RTI Imp	85.0	°C	UL 746
RTI Str	85.0	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
0.800 mm, in Oil	35	kV/mm	
1.60 mm, in Oil	25	kV/mm	
3.20 mm, in Oil	17	kV/mm	
Relative Permittivity			IEC 60250
50 Hz	2.80		
60 Hz	2.80		
1 MHz	2.70		
Dissipation Factor			IEC 60250
50 Hz	4.0E-3		
60 Hz	4.0E-3		
1 MHz	8.0E-3		
Arc Resistance [5]	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.711 mm	HB		
1.22 mm	V-1		
1.47 mm	V-0		
2.01 mm	5VB		
3.40 mm	5VA		
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
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

NOTE	
1.	Type I, 50 mm/min
2.	Type I, 50 mm/min
3.	2.6 mm/min
4.	2.6 mm/min
5.	Tungsten Electrode

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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