GE Plastics

CYCOLOY® *C6200*

Americas: COMMERCIAL

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

TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	67	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	50	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	103	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2690	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	534	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	61	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	54	J	ASTM D 3763
THERMAL			
HDT, 1.84 MPa, 3.2mm, unannealed	88	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	91	°C	ASTM D 648
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 D 792
Mold Shrinkage, flow, 3.2 mm	0.4 - 0.6	%	GE Method
Mold Shrinkage, xflow, 3.2 mm	0.4 - 0.6	%	GE Method
Melt Flow Rate, 260°C/2.16 kgf	14.5	g/10 min	ASTM D 1238
Spiral Flow,260°C,10 ips,3.175 X 1524 mm	685.8	mm	-
ELECTRICAL			
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
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	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	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

1) Typical values only. Variations within normal tolerances are possible for variose colours.All values are measured at least after 48 hours storage at 23°C/50% relative humidity.
All properties, expect the melt volume rate are measured on injection moulded samples.
All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose.Not to be used for part or tool design.
3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
4) Own measurement according to UL.

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TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
Relative Permittivity, 50/60 Hz	2.8	-	IEC 60250
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
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	0.7	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating (3)	1.2	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94-5VA Rating (3)	3.4	mm	UL 94
UL Recognized, 94-5VB Rating (3)	2	mm	UL 94
CSA (See File for complete listing)	LS88480	File No.	CSA LISTED

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
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 - 265	°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

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