

**CYCOLOY® C1110HF**
Americas: **COMMERCIAL**

High impact and ductility at 73F and -20F. For thin-wall applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	75	%	ASTM D 638
Tensile Modulus, 50 mm/min	2210	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	87	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2380	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	641	J/m	ASTM D 256
Izod Impact, notched, -30°C	267	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	61	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	47	J	ASTM D 3763
Instrumented Impact Total Energy, 23°C	61	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	54	J	ASTM D 3763
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	127	°C	ASTM D 648
HDT, 1.84 MPa, 3.2mm, unannealed	110	°C	ASTM D 648
CTE, -30°C to 30°C, flow	7.2E-05	1/°C	ASTM D 696
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Specific Gravity	1.14	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	GE Method
Melt Flow Rate, 260°C/3.8 kgf	12	g/10 min	ASTM D 1238
ELECTRICAL			
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	3	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS			





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UL Recognized, 94HB Flame Class Rating (3)	1.2	mm	UL 94
CSA (See File for complete listing)	LS88480	File No.	CSA LISTED
UV-light, water exposure/immersion	F2	-	UL 746C





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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	105 - 110	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	275 - 300	°C
Nozzle Temperature	275 - 300	°C
Front - Zone 3 Temperature	260 - 300	°C
Middle - Zone 2 Temperature	255 - 295	°C
Rear - Zone 1 Temperature	250 - 290	°C
Mold Temperature	60 - 90	°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

