



**CYCOLOY™ Resin CX7240**  
**Americas: COMMERCIAL**

CYCOLOY CX7240 resin is an injection moldable PC/ABS blend. It contains non-brominated and non-chlorinated flame retardant systems to meet UL-94 V0 at 0.75mm, V1 at 0.6mm, V2 at 0.2mm and 5VB at 1.5mm respectively. Excellent flow and impact balance together with the thin wall flame resistance and all color options make CYCOLOY CX7240 an ideal candidate for a wide variety of thin wall applications.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 2.0 in/min	9400	psi	ASTM D 638
Tensile Stress, brk, Type I, 2.0 in/min	8400	psi	ASTM D 638
Tensile Strain, yld, Type I, 2.0 in/min	4.1	%	ASTM D 638
Tensile Strain, brk, Type I, 2.0 in/min	100	%	ASTM D 638
Tensile Modulus, 0.2 in/min	377000	psi	ASTM D 638
Flexural Stress, yld, 0.05 in/min, 2 in span	15000	psi	ASTM D 790
Flexural Modulus, 0.05 in/min, 2 in span	362000	psi	ASTM D 790
Tensile Stress, yield, 50 mm/min	65	MPa	ISO 527
Tensile Stress, break, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4	%	ISO 527
Tensile Strain, break, 50 mm/min	90	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	96	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, notched, 73°F	13.1	ft-lb/in	ASTM D 256
Izod Impact, notched, -22°F	3.2	ft-lb/in	ASTM D 256
Instrumented Impact Total Energy, 73°F	575	in-lb	ASTM D 3763
Izod Impact, notched 80*10*3 +23°C	20	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	10	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 +23°C	25	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	10	kJ/m <sup>2</sup>	ISO 180/1A

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(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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### Americas: COMMERCIAL

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>IMPACT</b>			
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	20	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	10	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	22	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	230	°F	ASTM D 1525
HDT, 66 psi, 0.125 in, unannealed	212	°F	ASTM D 648
HDT, 264 psi, 0.125 in, unannealed	192	°F	ASTM D 648
HDT, 264 psi, 0.250 in, unannealed	210	°F	ASTM D 648
CTE, flow, -40°F to 100°F	4.16E-05	1/°F	ASTM E 831
CTE, xflow, -40°F to 100°F	4.16E-05	1/°F	ASTM E 831
Thermal Conductivity	0.2	W/m-°C	ISO 8302
CTE, -40°C to 40°C, flow	7.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	Pass	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	110	°C	ISO 306
Vicat Softening Temp, Rate B/120	113	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	93	°C	ISO 75/Af
Relative Temp Index, Elec	90	°C	UL 746B
Relative Temp Index, Mech w/impact	90	°C	UL 746B
Relative Temp Index, Mech w/o impact	90	°C	UL 746B
<b>PHYSICAL</b>			
Specific Gravity	1.19	-	ASTM D 792
Mold Shrinkage, flow, 0.125" (5)	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 260°C/2.16 kgf	18	g/10 min	ASTM D 1238
Density	0.04	lb/in <sup>3</sup>	ISO 1183

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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>PHYSICAL</b>			
Water Absorption, equilibrium, 73°F	0.2	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Melt Volume Rate, MVR at 260°C/2.16 kg	15	cm <sup>3</sup> /10 min	ISO 1133
<b>ELECTRICAL</b>			
Hot Wire Ignition {PLC}	3	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
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
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94V-1 Flame Class Rating (3)	0.023	in	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	0.029	in	UL 94
UL Recognized, 94-5VA Rating (3)	0.118	in	UL 94
UL Recognized, 94-5VB Rating (3)	0.059	in	UL 94
Glow Wire Flammability Index 960°C, passes at	0.029	in	IEC 60695-2-12
Glow Wire Flammability Index 960°C, passes at, by VDE	0.029	in	IEC 60695-2-12
Glow Wire Ignitability Temperature, 0.75 mm, by VDE	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm, by VDE	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	800	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm, by VDE	775	°C	IEC 60695-2-13
Oxygen Index (LOI)	34	%	ISO 4589

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
Drying Temperature	180 - 190	°F
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	480 - 570	°F
Nozzle Temperature	480 - 570	°F
Front - Zone 3 Temperature	480 - 570	°F
Middle - Zone 2 Temperature	460 - 550	°F
Rear - Zone 1 Temperature	450 - 540	°F
Hopper Temperature	140 - 180	°F
Mold Temperature	140 - 190	°F
Vent Depth	0.0012 - 0.003	in

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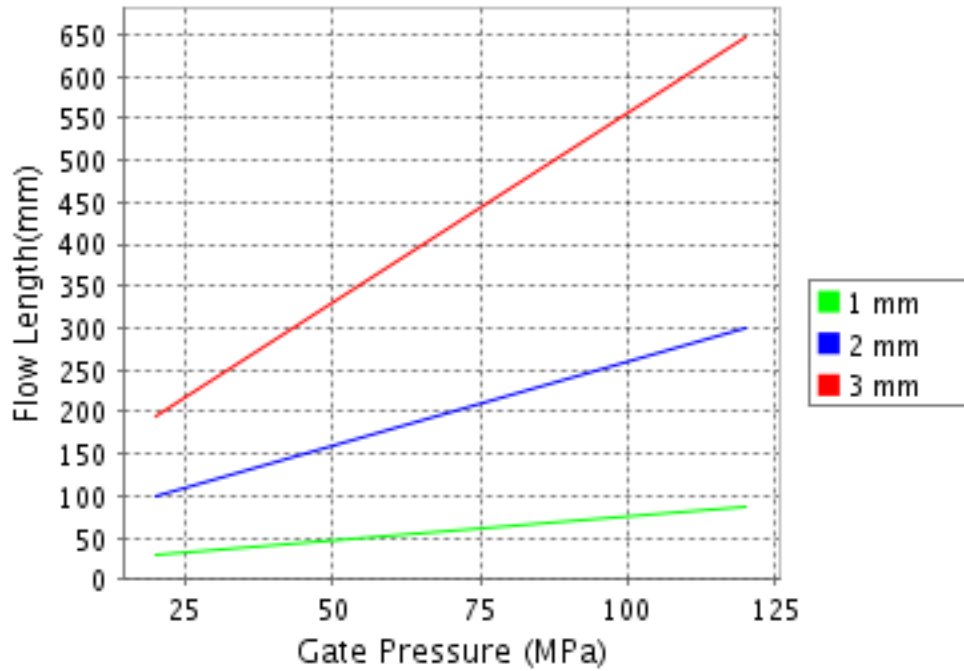
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**CALCULATED FLOW LENGTH INDICATION**  
**Moldflow® Radial Flow Analysis**  
**CYCOLOY® CX7240**  
**Melt Temperature : 285°C**  
**Mold Temperature : 75°C**



**Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.**  
**® Moldflow is a registered trademark of the Moldflow Corporation.**

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