

CYCOLOY™ CX7240U resin

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

CYCOLOY CX7240U resin is an injection moldable PC/ABS blend with a UV stabilization package. It contains non-brominated and non-chlorinated flame retardant systems to meet thin wall flame resistance. Excellent flow and impact balance together with the thin wall flame resistance and all color options make CYCOLOY CX7240U an ideal candidate for a wide variety of thin wall applications.

General Information			
UL YellowCard	E207780-642977		
Additive	UV stabilizer		
	Flame retardancy		
Features	Chlorine Free		
	Impact resistance, good		
	Good liquidity		
	Bromine-free		
	Flame retardancy		
Uses	Thin wall parts		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.19	g/cm ³	ASTM D792
--	1.20	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	16	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	15.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40 - 0.60	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.20	%	ISO 62
Equilibrium, 23°C, 50% RH	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2950	MPa	ASTM D638
--	2530	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	65.0	MPa	ASTM D638
Yield	65.0	MPa	ISO 527-2/50
Fracture ³	58.0	MPa	ASTM D638

Fracture	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	4.1	%	ASTM D638
Yield	4.0	%	ISO 527-2/50
Fracture ⁵	100	%	ASTM D638
Fracture	90	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2750	MPa	ASTM D790
-- ⁷	2500	MPa	ISO 178
Flexural Stress			
--	96.0	MPa	ISO 178
Yield, 50.0mm span ⁸	104	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	10	kJ/m ²	ISO 179/1eA
23°C	20	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	100	J/m	ASTM D256
23°C	500	J/m	ASTM D256
-30°C ¹⁰	10	kJ/m ²	ISO 180/1A
23°C ¹¹	20	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	65.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	100	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	89.0	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	99.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹²	93.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	106	°C	ASTM D1525 ¹³
--	110	°C	ISO 306/B50
--	113	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	6.3E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	6.2E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	5.4E-5	cm/cm/°C	ASTM E831, ISO 11359-2
RTI Elec	90.0	°C	UL 746
RTI Imp	90.0	°C	UL 746
RTI	90.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method

Comparative Tracking Index (CTI)	PLC 3	UL 746	
High Amp Arc Ignition (HAI)	PLC 0	UL 746	
Hot-wire Ignition (HWI)	PLC 3	UL 746	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.400 mm	V-2		UL 94
0.600 mm	V-1		UL 94
0.750 mm	V-0		UL 94
1.50 mm	5VB		UL 94
3.00 mm	5VA		UL 94
Glow Wire Flammability Index (0.750 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	825	°C	IEC 60695-2-13
3.00 mm	800	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	90.0	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.040	%	
Suggested Shot Size	40 - 80	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	260 - 300	°C	
Middle Temperature	260 - 300	°C	
Front Temperature	265 - 300	°C	
Nozzle Temperature	265 - 300	°C	
Processing (Melt) Temp	270 - 300	°C	
Mold Temperature	60.0 - 90.0	°C	
Back Pressure	0.300 - 0.700	MPa	
Screw Speed	40 - 70	rpm	
Vent Depth	0.038 - 0.076	mm	
NOTE			
1.	50 mm/min		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		
4.	Type 1, 50mm/min		
5.	Type 1, 50mm/min		
6.	1.3 mm/min		
7.	2.0 mm/min		
8.	1.3 mm/min		
9.	80*10*3 sp=62mm		
10.	80*10*3		
11.	80*10*3		
12.	80*10*4 mm		

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