

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	E121562-642976		
Additive	Flame Retardant		
	UV Stabilizer		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Flow		
	Good Impact Resistance		
Uses	Thin-walled 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 to 0.60	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.20	%	
Equilibrium, 23°C, 50% RH	0.10	%	
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
Break ³	58.0	MPa	ASTM D638

Break	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	4.1	%	ASTM D638
Yield	4.0	%	ISO 527-2/50
Break ⁵	100	%	ASTM D638
Break	90	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2750	MPa	ASTM D790
-- ⁷	2500	MPa	ISO 178
Flexural Stress			
--	96.0	MPa	ISO 178
Yield, 50.0 mm 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	
23°C	20	kJ/m ²	
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, 3.20 mm	100	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	89.0	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	99.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm 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
CLTE			
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
Transverse : -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 Str	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		
0.600 mm	V-1		
0.750 mm	V-0		
1.50 mm	5VB		
3.00 mm	5VA		
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	
3.00 mm	800	°C	
Injection	Nominal Value	Unit	
Drying Temperature	90.0	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.040	%	
Suggested Shot Size	40 to 80	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	260 to 300	°C	
Middle Temperature	260 to 300	°C	
Front Temperature	265 to 300	°C	
Nozzle Temperature	265 to 300	°C	
Processing (Melt) Temp	270 to 300	°C	
Mold Temperature	60.0 to 90.0	°C	
Back Pressure	0.300 to 0.700	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.038 to 0.076	mm	
NOTE			
1.	50 mm/min		
2.	Type I, 50 mm/min		
3.	Type I, 50 mm/min		
4.	Type I, 50 mm/min		
5.	Type I, 50 mm/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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