

CYCOLOY™ CX7240 resin

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

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 0.4mm 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.

General Information			
UL YellowCard	E45329-549531	E45329-101674341	
Additive	Flame retardancy		
Features	Chlorine Free		
	Impact resistance, good		
	Good liquidity		
	Bromine-free		
	Flame retardancy		
Uses	Thin wall parts		
RoHS Compliance	RoHS compliance		
Appearance	Available colors		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.19	g/cm³	ASTM D792
--	1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	18	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	15.0	cm³/10min	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	2600	MPa	ASTM D638
--	2600	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	2500	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
	10		
-30°C	10	kJ/m ²	ISO 179/1eA
23°C	25	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
	No Break		
-30°C	No Break		ISO 179/1eU
	No Break		
23°C	No Break		ISO 179/1eU
Notched Izod Impact			
-30°C	180	J/m	ASTM D256
23°C	250	J/m	ASTM D256
-30°C ¹¹	10	kJ/m ²	ISO 180/1A
23°C ¹²	25	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹³			ISO 180/1U
	No Break		
-30°C	No Break		ISO 180/1U

No Break			
23°C	No Break		ISO 180/1U
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 ¹⁴	93.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	110	°C	ASTM D1525, ISO 306/B50 11 ¹⁵
--	113	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	7.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	7.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Thermal Conductivity	0.20	W/m/K	ISO 8302
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
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength			IEC 60243-1
0.800mm, in oil	35	kV/mm	IEC 60243-1
1.60mm, in oil	25	kV/mm	IEC 60243-1
3.20mm, in oil	17	kV/mm	IEC 60243-1
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
0.600 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			IEC 60695-2-12
0.750 mm ¹⁶	960	°C	IEC 60695-2-12

0.750 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm ¹⁷	775	°C	IEC 60695-2-13
1.00 mm	825	°C	IEC 60695-2-13
1.50 mm ¹⁸	775	°C	IEC 60695-2-13
3.00 mm	800	°C	IEC 60695-2-13
3.00 mm ¹⁹	775	°C	IEC 60695-2-13
Oxygen Index	35	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	80.0 - 90.0	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	230 - 280	°C	
Middle Temperature	240 - 290	°C	
Front Temperature	250 - 300	°C	
Nozzle Temperature	250 - 300	°C	
Processing (Melt) Temp	250 - 300	°C	
Mold Temperature	60.0 - 85.0	°C	
Vent Depth	0.030 - 0.075	mm	
NOTE			
1.	5.0 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*4 sp=62mm		
10.	80*10*4 sp=62mm		
11.	80*10*4		
12.	80*10*4		
13.	80*10*4		
14.	80*10*4 mm		
15.	标准 B (120°C/h), 载荷2 (50N)		
16.	by VDE		
17.	by VDE		
18.	by VDE		
19.	by VDE		

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