

CYCOLOY™ CY2010 resin

Polycarbonate + ABS

SABIC Innovative Plastics Europe

Message:

Flame retardant PC/ABS blend using non-brominated and non-chlorinated flame retardant systems, offering hydrolytic stability and excellent flow for a wide variety of thin wall or large size applications including business equipment, TV enclosures, among others

General Information			
UL YellowCard	E45329-101211601		
Additive	Flame Retardant		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	High Flow		
	Hydrolytically Stable		
Uses	Business Equipment		
	Television Housings		
	Thin-walled Parts		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	31	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	27.0	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	0.10	%	
Equilibrium, 23°C, 50% RH	0.050	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2800	MPa	ASTM D638
--	2670	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	65.0	MPa	ASTM D638
Yield	63.0	MPa	ISO 527-2/50
Break ³	48.0	MPa	ASTM D638
Break	43.0	MPa	ISO 527-2/50

Tensile Elongation			
Yield ⁴	3.9	%	ASTM D638
Yield	3.5	%	ISO 527-2/50
Break ⁵	34	%	ASTM D638
Break	40	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2630	MPa	ASTM D790
-- ⁷	2700	MPa	ISO 178
Flexural Stress			
--	95.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	97.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
	5.0		
-30°C	5.0	kJ/m ²	
23°C	10	kJ/m ²	
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
	No Break		
-30°C	No Break		
	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	69	J/m	ASTM D256
23°C	90	J/m	ASTM D256
	5.0		
-30°C ¹¹	5.0	kJ/m ²	ISO 180/1A
	10		
23°C ¹²	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹³			ISO 180/1U

	No Break		
-30°C	No Break		
	No Break		
23°C	No Break		
Instrumented Dart Impact (23°C, Total Energy)	20.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 6.40 mm	81.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁴	73.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	89.0	°C	ISO 306/B50
--	92.0	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow : -40 to 40°C	7.5E-5	cm/cm/°C	
Transverse : -40 to 40°C	7.5E-5	cm/cm/°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.00 mm	V-2		
1.50 mm	V-0		
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	800	°C	
2.00 mm	750	°C	
3.00 mm	725	°C	
Injection	Nominal Value	Unit	
Drying Temperature	75.0 to 80.0	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	200 to 230	°C	
Middle Temperature	220 to 260	°C	
Front Temperature	230 to 270	°C	
Nozzle Temperature	220 to 260	°C	
Processing (Melt) Temp	230 to 270	°C	
Mold Temperature	50.0 to 70.0	°C	
NOTE			
1.	5.0 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*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

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