

CYCOLOY™ XCM840 resin

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

High stiffness PC/ABS blend offering practical impact, low CTE, high heat resistance, with good aesthetics suitable for injection molding

General Information			
Features	Low CLTE		
	Rigidity, high		
	Impact resistance, good		
	Heat resistance, high		
	Good appearance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.27	g/cm³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR)			ISO 1133
260°C/5.0 kg	10.0	cm³/10min	ISO 1133
265°C/5.0 kg	12.7	cm³/10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.50 - 0.70	%	Internal method
Transverse flow: 3.20mm	0.50 - 0.70	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	4300	MPa	ASTM D638
--	4300	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	56.0	MPa	ASTM D638
Yield	56.0	MPa	ISO 527-2/5
Fracture ³	47.0	MPa	ASTM D638
Fracture	47.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	4.0	%	ASTM D638
Yield	4.0	%	ISO 527-2/5
Fracture	50	%	ISO 527-2/5
Flexural Modulus ⁵	4000	MPa	ISO 178
Flexural Stress	100	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁶			ISO 179/1eA
-30°C	11	kJ/m²	ISO 179/1eA

23°C	37	kJ/m ²	ISO 179/1eA
Notched Izod Impact ⁷			ISO 180/1A
-30°C	8.0	kJ/m ²	ISO 180/1A
23°C	15	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	60.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, unannealed, 3.20mm	120	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ⁸	120	°C	ISO 75-2/Af
Vicat Softening Temperature	138	°C	ISO 306/B50
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	4.6E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	6.1E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	120 - 127	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.010	%	
Suggested Shot Size	30 - 80	%	
Rear Temperature	260 - 270	°C	
Middle Temperature	265 - 290	°C	
Front Temperature	270 - 300	°C	
Nozzle Temperature	260 - 290	°C	
Processing (Melt) Temp	270 - 300	°C	
Mold Temperature	60 - 100	°C	
Back Pressure	0.300 - 0.700	MPa	
Screw Speed	40 - 70	rpm	
Vent Depth	0.038 - 0.076	mm	
NOTE			
1.	5.0 mm/min		
2.	Type 1, 5.0 mm/min		
3.	Type 1, 5.0 mm/min		
4.	Type 1, 5.0 mm/min		
5.	2.0 mm/min		
6.	80*10*3 sp=62mm		
7.	80*10*3		
8.	80*10*4 mm		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

