

CYCOLOY™ Resin XCY630 - Asia

Polycarbonate + ABS

SABIC

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Technical Data

Product Description

PC/ABS, hydrolytically stable.

General

Material Status	• Commercial: Active
Search for UL Yellow Card	• SABIC • CYCOLOY™ Resin
Availability	• Asia Pacific
Features	• Ductile • Heat Aging Resistant • High Flow • High Impact Resistance • Hydrolytically Stable
Uses	• Automotive Applications • Automotive Exterior Parts • Automotive Interior Parts • Automotive Lighting • Automotive Under the Hood • Electrical/Electronic Applications • Non-specific Food Applications
Processing Method	• Injection Molding
Also Available In	• Latin America • North America

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity	1.14 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	26 g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	22.0 cm ³ /10min	ISO 1133
Molding Shrinkage		Internal Method
Flow : 3.20 mm	0.50 to 0.70 %	
Across Flow : 3.20 mm	0.50 to 0.70 %	
Water Absorption		ISO 62
Saturation, 23°C	0.40 %	
Equilibrium, 23°C, 50% RH	0.15 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- ²	2300 MPa	ASTM D638
--	2250 MPa	ISO 527-2/1
Tensile Strength		
Yield ³	54.0 MPa	ASTM D638
Yield	54.0 MPa	ISO 527-2/50
Break ³	53.0 MPa	ASTM D638
Break	53.0 MPa	ISO 527-2/50
Tensile Elongation		
Yield ³	4.5 %	ASTM D638
Yield	4.5 %	ISO 527-2/50
Break ³	120 %	ASTM D638
Break	120 %	ISO 527-2/50
Flexural Modulus		
50.0 mm Span ⁴	2300 MPa	ASTM D790
-- ⁵	2200 MPa	ISO 178
Flexural Stress		
-- ^{5,6}	82.0 MPa	ISO 178
Yield, 50.0 mm Span ⁴	89.0 MPa	ASTM D790



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Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength ⁷		ISO 179/1eA
-30°C	30 kJ/m ²	
23°C	65 kJ/m ²	
Notched Izod Impact		
-30°C	430 J/m	ASTM D256
23°C	590 J/m	ASTM D256
-30°C ⁸	30 kJ/m ²	ISO 180/1A
23°C ⁸	65 kJ/m ²	ISO 180/1A
Instrumented Dart Impact		ASTM D3763
-30°C, Total Energy	67.0 J	
23°C, Total Energy	55.0 J	

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed, 4.00 mm, 64.0 mm Span ⁹	126 °C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	107 °C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm, 64.0 mm Span ⁹	105 °C	ISO 75-2/Af
Vicat Softening Temperature		
--	126 °C	ASTM D1525 ¹⁰ ISO 306/B50 ¹⁰
--	127 °C	ISO 306/B120
Ball Pressure Test (73 to 77°C)	Pass	IEC 60695-10-2
CLTE		
Flow : -40 to 40°C	7.0E-5 cm/cm/°C	ASTM E831
Flow : -40 to 40°C	8.0E-5 cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.0E-5 cm/cm/°C	ASTM E831
Transverse : -40°C	8.0E-5 cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20 W/m/K	ISO 8302

Electrical	Nominal Value Unit	Test Method
Surface Resistivity	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+15 ohms·cm	IEC 60093
Electric Strength		IEC 60243-1
0.800 mm, in Oil	35 kV/mm	
1.60 mm, in Oil	25 kV/mm	
3.20 mm, in Oil	17 kV/mm	

Fill Analysis	Nominal Value Unit	Test Method
Melt Viscosity (260°C, 1500 sec ⁻¹)	170 Pa·s	ISO 11443

Injection	Nominal Value Unit
Drying Temperature	95 to 105 °C
Drying Time	2.0 to 4.0 hr
Suggested Max Moisture	0.020 %
Hopper Temperature	60 to 80 °C
Rear Temperature	230 to 260 °C
Middle Temperature	250 to 290 °C
Front Temperature	250 to 290 °C
Nozzle Temperature	240 to 280 °C
Processing (Melt) Temp	260 to 290 °C
Mold Temperature	60 to 90 °C



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Notes

¹ Typical properties: these are not to be construed as specifications.

² 5.0 mm/min

³ Type I, 50 mm/min

⁴ 1.3 mm/min

⁵ 2.0 mm/min

⁶ at Yield

⁷ 80*10*3 sp=62mm

⁸ 80*10*3 mm

⁹ 80*10*4 mm

¹⁰ Rate A (50°C/h), Loading 2 (50 N)



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Where to Buy

Supplier

SABIC

Web: <http://www.sabic.com/>

Distributor

Guangzhou Hisun Chemical Co., Ltd.

Telephone: +86-20-8732-0686

Web: <http://www.hisunchemical.com>

Availability: China

