

CYCOLOY™ C2800 resin

Acrylonitrile Butadiene Styrene + PC

SABIC Innovative Plastics Asia Pacific

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Non-chlorinated and non-brominated flame retardant PC/ABS offering balanced flow and impact for various applications.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
UL Yellow Card ²	• E45587-236934 • E207780-228468
Search for UL Yellow Card	• SABIC Innovative Plastics Asia Pacific • CYCOLOY™
Availability	• Asia Pacific
Additive	• Flame Retardant
Features	• Bromine Free • Chlorine Free • Flame Retardant • Good Flow • Good Impact Resistance
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity			ASTM D792
--	1.17	1.17 g/cm ³	
-- ⁴	1.18	1.18 g/cm ³	
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	16 g/10 min	16 g/10 min	ASTM D1238
Molding Shrinkage			Internal Method
Flow : 0.126 in (3.20 mm)	4.0E-3 to 6.0E-3 in/in	0.40 to 0.60 %	
Across Flow : 0.126 in (3.20 mm)	4.0E-3 to 6.0E-3 in/in	0.40 to 0.60 %	
Water Absorption			ASTM D570
24 hr	0.10 %	0.10 %	
Equilibrium, 73°F (23°C)	0.40 %	0.40 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ⁵	390000 psi	2690 MPa	ASTM D638
Tensile Strength ⁶ (Yield)	8500 psi	58.6 MPa	ASTM D638
Tensile Elongation ⁶			ASTM D638
Yield	5.0 %	5.0 %	
Break	50 %	50 %	
Flexural Modulus ⁷ (3.94 in (100 mm) Span)	390000 psi	2690 MPa	ASTM D790
Flexural Strength ⁷			ASTM D790
Yield, 3.94 in (100 mm) Span	14000 psi	96.5 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	8.0 ft·lb/in	430 J/m	ASTM D256
Instrumented Dart Impact			ASTM D3763
73°F (23°C), Total Energy	516 in·lb	58.3 J	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	120	120	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	165 °F	73.9 °C	
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	176 °F	80.0 °C	
Vicat Softening Temperature	195 °F	90.6 °C	ASTM D1525 ⁸



CYCOLOY™ C2800 resin

Acrylonitrile Butadiene Styrene + PC

SABIC Innovative Plastics Asia Pacific**PROSPECTOR®**

www.ulprospector.com

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
CLTE			ASTM E831
Flow : -40 to 140°F (-40 to 60°C)	4.0E-5 in/in/°F	7.2E-5 cm/cm/°C	
Transverse : -40 to 140°F (-40 to 60°C)	4.0E-5 in/in/°F	7.2E-5 cm/cm/°C	
Thermal Conductivity	1.4 Btu·in/hr/ft ² /°F	0.20 W/m/K	ASTM C177
RTI Elec	176 °F	80.0 °C	UL 746
RTI Imp	158 °F	70.0 °C	UL 746
RTI Str	176 °F	80.0 °C	UL 746
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+14 ohm	> 1.0E+14 ohm	ASTM D257
Volume Resistivity	1.0E+17 ohm·cm	1.0E+17 ohm·cm	ASTM D257
Dielectric Strength			ASTM D149
0.126 in (3.20 mm), in Oil	460 V/mil	18 kV/mm	
Dielectric Constant			ASTM D150
50 Hz	3.00	3.00	
60 Hz	3.00	3.00	
100 Hz	3.00	3.00	
Dissipation Factor			ASTM D150
50 Hz	4.8E-3	4.8E-3	
60 Hz	4.8E-3	4.8E-3	
Arc Resistance ⁹	PLC 6	PLC 6	ASTM D495
Comparative Tracking Index (CTI)	PLC 1	PLC 1	UL 746
High Amp Arc Ignition (HAI)	PLC 0	PLC 0	UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3	PLC 3	UL 746
Hot-wire Ignition (HWI)	PLC 3	PLC 3	UL 746
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.0350 in (0.889 mm)	V-2	V-2	
0.0580 in (1.47 mm)	V-0	V-0	
0.0910 in (2.31 mm)	5VB	5VB	
Oxygen Index	35 %	35 %	ASTM D2863
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	171 to 180 °F	77.0 to 82.0 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Drying Time, Maximum	8.0 hr	8.0 hr	
Suggested Max Moisture	0.040 %	0.040 %	
Suggested Shot Size	30 to 80 %	30 to 80 %	
Rear Temperature	410 to 489 °F	210 to 254 °C	
Middle Temperature	421 to 500 °F	216 to 260 °C	
Front Temperature	441 to 525 °F	227 to 274 °C	
Nozzle Temperature	450 to 525 °F	232 to 274 °C	
Processing (Melt) Temp	450 to 525 °F	232 to 274 °C	
Mold Temperature	120 to 160 °F	49.0 to 71.0 °C	
Back Pressure	50.0 to 100 psi	0.345 to 0.689 MPa	
Screw Speed	40 to 70 rpm	40 to 70 rpm	
Vent Depth	1.5E-3 to 3.0E-3 in	0.038 to 0.076 mm	



CYCOLOY™ C2800 resin

Acrylonitrile Butadiene Styrene + PC

SABIC Innovative Plastics Asia Pacific

PROSPECTOR®

www.ulprospector.com

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ Color

⁵ 2.0 in/min (50 mm/min)

⁶ Type I, 2.0 in/min (50 mm/min)

⁷ 0.10 in/min (2.6 mm/min)

⁸ Rate B (120°C/h), Loading 2 (50 N)

⁹ Tungsten Electrode



Where to Buy

Supplier

SABIC Innovative Plastics Asia Pacific
Shanghai, China
Telephone: +86-21-3222-4500
Web: <http://www.sabic-ip.com/>

Distributor

Please contact the supplier to find a distributor for CYCOLOY™ C2800 resin

Reseller

A Reseller is not a distributor authorized by the Supplier.

Honrun International Co., Ltd.

Telephone: 852-69575415
Web: <http://www.ponci.com.cn/eng/>
Availability: China

Plastic Online International Chemical (HK) Co., Limited

Telephone: +852-30501108
Web: <http://www.pom-pa.com.cn/offerlist.htm>
Availability: China, Hong Kong

