

CYCOLOY™ C2950 resin

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

Non-chlorinated and non-brominated flame retardant PC/ABS offering balanced flow and impact plus improved heat resistance intended for various applications.

General Information			
UL YellowCard	E45587-236935	E207780-228471	
Additive	Flame retardancy		
Features	Chlorine Free		
	Impact resistance, good		
	Good liquidity		
	Heat resistance, medium		
	Bromine-free		
	Flame retardancy		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
--	1.18	g/cm ³	ASTM D792
-- ¹	1.22	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/2.16 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage			Internal method
Flow: 3.20mm	0.40 - 0.60	%	Internal method
Transverse flow: 3.20mm	0.40 - 0.60	%	Internal method
Water Absorption			ASTM D570
24 hr	0.10	%	ASTM D570
Equilibrium, 23°C	0.40	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	123		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	62.7	MPa	ASTM D638
Tensile Elongation ³ (Break)	40	%	ASTM D638
Flexural Modulus ⁴ (100 mm Span)	2650	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 100 mm Span)	102	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	160	J/m	ASTM D256
23°C	530	J/m	ASTM D256

Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	54.2	J	ASTM D3763
23°C, Total Energy	61.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	104	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	90.6	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	95.0	°C	ASTM D648
Vicat Softening Temperature	113	°C	ASTM D1525 ⁶
Linear thermal expansion coefficient			ASTM D696
Flow: -30 to 30°C	7.2E-5	cm/cm/°C	ASTM D696
Lateral: -30 to 30°C	7.2E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.20	W/m/K	ASTM C177
RTI Elec	85.0	°C	UL 746
RTI Imp	85.0	°C	UL 746
RTI	85.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+16	ohms	ASTM D257
Volume Resistivity	1.0E+17	ohms·cm	ASTM D257
Dielectric Strength (3.20 mm, in Oil)	20	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.00		ASTM D150
60 Hz	3.00		ASTM D150
100 Hz	3.00		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	5.0E-3		ASTM D150
60 Hz	5.0E-3		ASTM D150
100 Hz	4.9E-3		ASTM D150
Arc Resistance ⁷	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	V-0		UL 94
2.49 mm	5VB		UL 94
Oxygen Index	32	%	ASTM D2863
Injection	Nominal Value	Unit	
Drying Temperature	82.0 - 88.0	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	8.0	hr	

Suggested Max Moisture	0.040	%
Suggested Shot Size	30 - 80	%
Rear Temperature	221 - 254	°C
Middle Temperature	221 - 277	°C
Front Temperature	243 - 277	°C
Nozzle Temperature	243 - 277	°C
Processing (Melt) Temp	243 - 277	°C
Mold Temperature	60.0 - 82.0	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.038 - 0.076	mm

NOTE

- | | |
|----|---------------------------|
| 1. | Color |
| 2. | Type 1, 50mm/min |
| 3. | Type 1, 50mm/min |
| 4. | 2.6 mm/min |
| 5. | 2.6 mm/min |
| 6. | 标准 B (120°C/h), 载荷2 (50N) |
| 7. | Tungsten electrode |

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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



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