

# CYCOLOY™ CS9610 resin

Polycarbonate + ABS

SABIC Innovative Plastics Asia Pacific

## Message:

Cycloy\* CS9610 is a FR PC/ABS blend using non-brominated and non-chlorinated flame retardant systems, offering optimum mechanical & impact balance and excellent flammability and low smoke behavior. This grade potentially can be considered for a wide variety of applications in areas such as transportation, consumer electronics and electrical equipments.

General Information			
UL YellowCard	E207780-600276		
Additive	Flame retardancy		
Features	Chlorine Free		
	Low smoke		
	Bromine-free		
	Flame retardancy		
Uses	Electrical/Electronic Applications		
	Application in Automobile Field		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	15	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	12.0	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40 - 0.60	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- <sup>1</sup>	2600	MPa	ASTM D638
--	2400	MPa	ISO 527-2/1
Tensile Strength			
Yield <sup>2</sup>	64.0	MPa	ASTM D638
Yield	62.0	MPa	ISO 527-2/50
Fracture <sup>3</sup>	62.0	MPa	ASTM D638
Fracture	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield <sup>4</sup>	5.0	%	ASTM D638
Yield	4.8	%	ISO 527-2/50
Fracture <sup>5</sup>	55	%	ASTM D638
Fracture	> 45	%	ISO 527-2/50
Flexural Modulus			

50.0mm span <sup>6</sup>	2440	MPa	ASTM D790
-- <sup>7</sup>	2500	MPa	ISO 178
<b>Flexural Stress</b>			
--	98.0	MPa	ISO 178
Yield, 50.0mm span <sup>8</sup>	98.0	MPa	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength <sup>9</sup>			ISO 179/1eA
-30°C	15	kJ/m <sup>2</sup>	ISO 179/1eA
23°C	45	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Notched Izod Impact</b>			
23°C	800	J/m	ASTM D256
-30°C <sup>10</sup>	15	kJ/m <sup>2</sup>	ISO 180/1A
23°C <sup>11</sup>	45	kJ/m <sup>2</sup>	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	72.0	J	ASTM D3763
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
<b>Deflection Temperature Under Load</b>			
0.45 MPa, unannealed, 3.20mm	118	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	105	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span <sup>12</sup>	106	°C	ISO 75-2/ Af
<b>Vicat Softening Temperature</b>			
--	124	°C	ISO 306/B50
--	127	°C	ISO 306/B120
<b>Flammability</b>	<b>Nominal Value</b>		<b>Test Method</b>
	V-0		
Flame Rating (2.0 mm)	5VB		UL 94
NBS Smoke Density			ASTM E662
Flaming, Dmax	225		ASTM E662
Flaming, Ds, 1.5 min	40.0		ASTM E662
Flaming, Ds, 4 min	150		ASTM E662
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Temperature	90	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.040	%	
Suggested Shot Size	40 - 80	%	
Hopper Temperature	60 - 80	°C	
Rear Temperature	260 - 300	°C	
Middle Temperature	260 - 300	°C	
Front Temperature	265 - 300	°C	
Nozzle Temperature	265 - 300	°C	

Processing (Melt) Temp	270 - 300	°C
Mold Temperature	60 - 90	°C
Back Pressure	0.300 - 0.700	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.038 - 0.076	mm

NOTE		
1.	50 mm/min	
2.	Type 1, 50mm/min	
3.	Type 1, 50mm/min	
4.	Type 1, 50mm/min	
5.	Type 1, 50mm/min	
6.	1.3 mm/min	
7.	2.0 mm/min	
8.	1.3 mm/min	
9.	80*10*3 sp=62mm	
10.	80*10*3	
11.	80*10*3	
12.	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

