

CYCOLOY* C2100 Resin

Acrylonitrile Butadiene Styrene + PC

SABIC Innovative Plastics Europe

Product Description

CYCOLOY C2100 is a flame retardant blend, specifically developed to meet the stringent requirements of mains current carrying applications. CYCOLOY C2100 combines excellent electrical properties and heat resistance with optimal processing efficiency.

General

Material Status	• Commercial: Active
Availability	• Europe
Additive	• Flame Retardant
Features	• Flame Retardant • Good Processability • Good Electrical Properties • High Heat Resistance
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	16.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Water Absorption			ISO 62
Saturation, 23°C	0.60	%	
Equilibrium, 23°C, 50% RH	0.20	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2600	MPa	ISO 527-2/1
Tensile Stress			
Yield	50.0	MPa	ISO 527-2/5
Yield	60.0	MPa	ISO 527-2/50
Break	45.0	MPa	ISO 527-2/5
Break	50.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	4.0	%	ISO 527-2/5 ISO 527-2/50
Break	60	%	ISO 527-2/5
Break	> 50	%	ISO 527-2/50
Flexural Modulus ²	2500	MPa	ISO 178
Flexural Strength ^{2, 3}	85.0	MPa	ISO 178
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 g, CS-17 Wheel	62.0	mg	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁴			ISO 179/1eA
-30°C	20	kJ/m ²	
23°C	50	kJ/m ²	
Notched Izod Impact Strength ⁵			ISO 180/1A
-30°C	20.0	kJ/m ²	
23°C	50.0	kJ/m ²	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	123		ISO 2039-2
Ball Indentation Hardness (H 358/30)	104	MPa	ISO 2039-1

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如需要更多物性资料请查阅 www.kedisujiao.com

备注：以上原料物性数据由厂家发布, 我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁶			
0.45 MPa, Unannealed, 100 mm Span	128	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	112	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	136	°C	ISO 306/B50
--	138	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow: -40 to 40°C	0.000075	cm/cm/°C	
Transverse: -40 to 40°C	0.000075	cm/cm/°C	
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	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
50 Hz	3.00		
60 Hz	3.00		
1 MHz	2.60		
Dissipation Factor			IEC 60250
50 Hz	0.0050		
60 Hz	0.0050		
1 MHz	0.0080		
Comparative Tracking Index	225	V	IEC 60112
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	
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.50 mm	V-0		
2.00 mm	5VB		
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Oxygen Index	32	%	ISO 4589-2
UL 746	Nominal Value	Unit	Test Method
RTI Str	115	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI Elec	125	°C	UL 746
Injection	Nominal Value	Unit	
Drying Temperature	90.0 to 100	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	210 to 240	°C	
Middle Temperature	230 to 270	°C	
Front Temperature	240 to 280	°C	
Nozzle Temperature	230 to 270	°C	
Processing (Melt) Temp	250 to 280	°C	
Mold Temperature	60.0 to 90.0	°C	

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Notes

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

² 2.0 mm/min

³ Yield

⁴ 80*10*3 sp=62mm

⁵ 80*10*3

⁶ 120*10*4 mm

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