

CYCOLAC™ FR23 resin

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

Flame retardant ABS (non-PBBE additives). Good properties/toughness. Excellent moldability. UL94 V-0 rated.

General Information			
Additive	Flame retardancy		
Features	Good formability		
	Good toughness		
	Flame retardancy		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.17	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			
230°C/3.8 kg	6.8	g/10 min	ASTM D1238
220°C/5.0 kg	9.8	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	37.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.70	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2410	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	42.7	MPa	ASTM D638
Fracture	35.2	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	2.1	%	ASTM D638
Fracture	11	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	2720	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	73.1	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	270	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	41.8	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	83.9	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	72.2	°C	ASTM D648
Vicat Softening Temperature	90.0	°C	ASTM D1525 ⁶

Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	7.9E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	7.9E-5	cm/cm/°C	ASTM E831
RTI Elec	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI	60.0	°C	UL 746
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
2.31 mm	V-0		UL 94
2.49 mm	5VB		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (200°C, 1000 sec ⁻¹)	310	Pa·s	ASTM D3835
Injection	Nominal Value	Unit	
Drying Temperature	82.2 - 87.8	°C	
Drying Time	2.0 - 4.0	hr	
Drying Time, Maximum	6.0	hr	
Suggested Max Moisture	0.10	%	
Suggested Shot Size	50 - 70	%	
Rear Temperature	171 - 182	°C	
Middle Temperature	193 - 204	°C	
Front Temperature	199 - 216	°C	
Nozzle Temperature	199 - 221	°C	
Processing (Melt) Temp	199 - 221	°C	
Mold Temperature	48.9 - 71.1	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	30 - 60	rpm	
Vent Depth	0.038 - 0.051	mm	
NOTE			
1.	5.0 mm/min		
2.	Type 1, 5.0 mm/min		
3.	Type 1, 5.0 mm/min		
4.	1.3 mm/min		
5.	1.3 mm/min		
6.	标准 B (120°C/h), 载荷2 (50N)		

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

