

CYCOLAC* MGX620ST Resin

Acrylonitrile Butadiene Styrene
SABIC Innovative Plastics Europe



Prospector

Product Description

Cyclac MGX620ST is a high heat magix product with stone effect. Cyclac MGX620ST exhibits an outstanding property balance, a good flow, high heat resistance and an excellent stability during injection moulding.

General

Material Status	• Commercial: Active
Availability	• Europe
Features	• Good Flow • High Heat Resistance
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.06	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	8.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955
Water Absorption			ISO 62
Saturation, 23°C	1.0	%	
Equilibrium, 23°C, 50% RH	0.20	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2500	MPa	ISO 527-2/1
Tensile Stress			
Yield	40.0	MPa	ISO 527-2/5
Yield	45.0	MPa	ISO 527-2/5
Break	35.0	MPa	ISO 527-2/5
Tensile Strain			ISO 527-2/5
Yield	3.0	%	ISO 527-2/50
Break	10	%	
Flexural Modulus ²	2500	MPa	ISO 178
Flexural Strength ^{2, 3}	75.0	MPa	ISO 178
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 g, CS-17 Wheel	70.0	mg	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	6.0	kJ/m ²	
23°C	10	kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-30°C	6.00	kJ/m ²	
23°C	12.0	kJ/m ²	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ISO 2039-2
Ball Indentation Hardness (H 358/30)	93.0	MPa	ISO 2039-1



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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁴			
0.45 MPa, Unannealed, 100 mm Span	93.0	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	83.0	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	106	°C	ISO 306/B50
--	108	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow: 23 to 60°C	0.000080	cm/cm/°C	
Transverse: 23 to 60°C	0.000080	cm/cm/°C	
Thermal Conductivity	0.20	W/m/K	ISO 8302
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
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	2.90		
60 Hz	2.90		
1E+6 Hz	2.80		
Dissipation Factor			IEC 60250
50 Hz	0.011		
60 Hz	0.011		
1E+6 Hz	0.014		
Comparative Tracking Index	575	V	IEC 60112
Electric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.60 mm, Testing by SABIC	HB		
Glow Wire Flammability Index			IEC 60695-2-12
1.00 mm	750	°C	
3.20 mm	650	°C	
Injection	Nominal Value	Unit	
Drying Temperature	90.0 to 100	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.10	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	230 to 260	°C	
Middle Temperature	250 to 280	°C	
Front Temperature	250 to 280	°C	
Nozzle Temperature	245 to 275	°C	
Processing (Melt) Temp	250 to 280	°C	
Mold Temperature	40.0 to 80.0	°C	

Notes

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

² 2.0 mm/min

³ Yield

⁴ 120*10*4 mm

