

CYCOLAC™ FXS610SK resin

Acrylonitrile Butadiene Styrene
SABIC Innovative Plastics Europe

Message:

CYCOLAC FXS610SK is a multi purpose ABS injection moulding grade, providing a favourable balance of engineering properties. CYCOLAC FXS610SK is suitable for those applications that require sparkle colour effects.

General Information			
UL YellowCard	E45329-100370045		
RoHS Compliance	RoHS Compliant		
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)	25	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	24.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.50 to 0.70	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	1.0	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ISO 2039-2
Ball Indentation Hardness (H 358/30)	98.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2500	MPa	ISO 527-2/1
Tensile Stress			
Yield	45.0	MPa	ISO 527-2/5
Yield	50.0	MPa	ISO 527-2/50
Break	35.0	MPa	ISO 527-2/5
Break	40.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	2.0	%	ISO 527-2/5
Yield	3.0	%	ISO 527-2/50
Break	9.0	%	ISO 527-2/5
Break	8.0	%	ISO 527-2/50
Flexural Modulus ²	2500	MPa	ISO 178
Flexural Stress	74.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	89.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method

Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	6.0	kJ/m ²	
23°C	10	kJ/m ²	
Notched Izod Impact Strength ⁴			ISO 180/1A
-30°C	7.0	kJ/m ²	
23°C	10	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, Unannealed, 100 mm Span	92.0	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	80.0	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	100	°C	ISO 306/B50
--	102	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 60°C	8.0E-5	cm/cm/°C	
Transverse : 23 to 60°C	8.0E-5	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	ohms · cm	IEC 60093
Electric Strength			IEC 60243-1
0.800 mm, in Oil	35	kV/mm	
1.60 mm, in Oil	26	kV/mm	
3.20 mm, in Oil	18	kV/mm	
Relative Permittivity			IEC 60250
50 Hz	2.70		
60 Hz	2.70		
1 MHz	2.60		
Dissipation Factor			IEC 60250
50 Hz	4.0E-3		
60 Hz	4.0E-3		
1 MHz	9.0E-3		
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm, Testing by SABIC)	HB		UL 94
Glow Wire Flammability Index (1.00 mm)	650	°C	IEC 60695-2-12
Injection	Nominal Value	Unit	
Drying Temperature	85.0 to 95.0	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.10	%	
Hopper Temperature	60.0 to 80.0	°C	

Rear Temperature	200 to 240	°C
Middle Temperature	220 to 260	°C
Front Temperature	220 to 260	°C
Nozzle Temperature	210 to 250	°C
Processing (Melt) Temp	220 to 260	°C
Mold Temperature	40.0 to 80.0	°C

NOTE

1.	Tensile Bar
2.	2.0 mm/min
3.	80*10*4 sp=62mm
4.	80*10*4
5.	120*10*4 mm

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