

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			
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 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	1.0	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
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
Fracture	35.0	MPa	ISO 527-2/5
Fracture	40.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	2.0	%	ISO 527-2/5
Yield	3.0	%	ISO 527-2/50
Fracture	9.0	%	ISO 527-2/5
Fracture	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	ISO 179/1eA

23°C	10	kJ/m ²	ISO 179/1eA
Notched Izod Impact ⁴			ISO 180/1A
-30°C	7.0	kJ/m ²	ISO 180/1A
23°C	10	kJ/m ²	ISO 180/1A
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
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 60°C	8.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 60°C	8.0E-5	cm/cm/°C	ISO 11359-2
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
Dielectric Strength			IEC 60243-1
0.800mm, in oil	35	kV/mm	IEC 60243-1
1.60mm, in oil	26	kV/mm	IEC 60243-1
3.20mm, in oil	18	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.70		IEC 60250
60 Hz	2.70		IEC 60250
1 MHz	2.60		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	4.0E-3		IEC 60250
60 Hz	4.0E-3		IEC 60250
1 MHz	9.0E-3		IEC 60250
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 - 95.0	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	200 - 240	°C	
Middle Temperature	220 - 260	°C	

Front Temperature	220 - 260	°C
Nozzle Temperature	210 - 250	°C
Processing (Melt) Temp	220 - 260	°C
Mold Temperature	40.0 - 80.0	°C

NOTE

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|----|-----------------|
| 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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