CYCOLAC™ RESIN FXS610SK

REGION ASIA

DESCRIPTION

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.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Taber Abrasion, CS-17, 1 kg	89	mg/1000cy	SABIC method
Tensile Stress, yield, 5 mm/min	45	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Stress, break, 50 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	9	%	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	8	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	74	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
Ball Indentation Hardness, H358/30	98	MPa	ISO 2039-1
Hardness, Rockwell R	114	-	ISO 2039-2
IMPACT			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m²	ISO 179/1eA
THERMAL			
Thermal Conductivity	0.2	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	100	°C	ISO 306
Vicat Softening Temp, Rate B/120	102	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	92	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	80	°C	ISO 75/Ae
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.5 – 0.7	%	SABIC method
Density	1.06	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	1	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Flow Rate, 220°C/10.0 kg	25	g/10 min	ISO 1133

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Volume Rate, MVR at 220°C/10.0 kg	24	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	26	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	18	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.6	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.004	-	IEC 60250
Dissipation Factor, 1 MHz	0.009	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Relative Permittivity, 50/60 Hz	2.7	-	IEC 60250
FLAME CHARACTERISTICS			
UL Yellow Card Link	E207780-228364	-	-
UL Compliant, 94HB Flame Class Rating	1.5	mm	UL 94 by SABIC-IP
Glow Wire Flammability Index 650°C, passes at	1	mm	IEC 60695-2-12
INJECTION MOLDING			
Drying Temperature	85 – 95	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	220 – 260	°C	
Nozzle Temperature	210 – 250	°C	
Front - Zone 3 Temperature	220 – 260	°C	
Middle - Zone 2 Temperature	220 – 260	°C	
Rear - Zone 1 Temperature	200 – 240	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	40 – 80	°C	

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