SABIC Cycoloy® FXC810SK PC+ABS (Europe) (Unverified Data**)

Categories: Polymer; Thermoplastic; ABS Polymer; Polycarbonate/ABS Alloy, Unreinforced; Polycarbonate (PC)

Material Notes: CYCOLOY FXC810SK is a multi purpose PC+ABS injection moulding grade, providing a favorable balance of engineering properties. CYCOLOY FXC810SK is suitable for those applications that require sparkle color effects.

This data was supplied by SABIC-IP for the Europe-Africa-Middle East region. MatWeb with separate data for other geographic regions as supplied by SABIC-IP as of August 2009.

Vendors: No vendors are listed for this material. Please click here if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.18 g/cc	0.0426 lb/in³	ISO 1183
Moisture Absorption at Equilibrium	0.20 %	0.20 %	23°C/50% RH; ISO 62
Water Absorption at Saturation	0.60 %	0.60 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	tensile bar; SABIC Method
Melt Flow	22 g/10 min @Load 5.00 kg, Temperature 260 °C	22 g/10 min @Load 11.0 lb, Temperature 500 °F	Melt Volume Rate (cm^3/10 min); ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	121	121	ISO 2039-2
Tensile Strength at Break	45.0 MPa	6530 psi	50 mm/min; ISO 527
Tensile Strength, Yield	55.0 MPa	7980 psi	50 mm/min; ISO 527
Elongation at Break	15 %	15 %	50 mm/min; ISO 527
Elongation at Yield	5.0 %	5.0 %	50 mm/min; ISO 527
Tensile Modulus	2.40 GPa	348 ksi	1 mm/min; ISO 527
Flexural Yield Strength	82.0 MPa	11900 psi	2 mm/min; ISO 178
Flexural Modulus	2.40 GPa	348 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m² @Thickness 3.00 mm, Temperature -30.0 °C	5.71 ft-lb/in² @Thickness 0.118 in, Temperature -22.0 °F	80*10*3; ISO 180/1A
	25.0 kJ/m² @Thickness 3.00 mm, Temperature 23.0 °C	11.9 ft-lb/in² @Thickness 0.118 in, Temperature 73.4 °F	80*10*3; ISO 180/1A
Charpy Impact, Notched	1.20 J/cm² @Thickness 3.00 mm, Temperature -30.0 °C	5.71 ft-lb/in² @Thickness 0.118 in, Temperature -22.0 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	2.50 J/cm² @Thickness 3.00 mm, Temperature 23.0 °C	11.9 ft-lb/in² @Thickness 0.118 in, Temperature 73.4 °F	V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
Taber Abrasion, mg/1000 Cycles	63	63	CS-17, 1 kg; SABIC Method

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	175 - 250 V	175 - 250 V	UL 746A
Hot Wire Ignition, HWI	15 - 30 sec	15 - 30 sec	PLC 3; UL 746A
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	surface; UL 746A

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 µm/m-°C @Temperature -40.0 - 40.0 °C	44.4 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
CTE, linear, Transverse to Flow	80.0 µm/m-°C @Temperature -40.0 - 40.0 °C	44.4 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft²-°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	128 °C @Thickness 4.00 mm	262 °F @Thickness 0.157 in	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	108 °C @Thickness 4.00 mm	226 °F @Thickness 0.157 in	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	128 °C	262 °F	Rate B/50; ISO 306
	130 °C	266 °F	Rate B/120; ISO 306
UL RTI, Electrical	105 °C	221 °F	UL 746B
UL RTI, Mechanical with Impact	80.0 °C	176 °F	UL 746B

UL RTI, Mechanical without Impact	105 °C	221 °F	UL 746B
Flammability, UL94	HB	HB	UL 94
	@Thickness 1.20 mm	@Thickness 0.0472 in	
	HB	HB	UL 94
	@Thickness 3.00 mm	@Thickness 0.118 in	

Descriptive Properties

Hardness, H358/30 (MPa)	99	ISO 2039-1

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