

SABIC LEXAN™ HF4010SR

Excellent flow, high gloss, superior release. For large part and / or thin wall molding.
Information provided by SABIC

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ISO 1183
Moisture Absorption	0.110 %	0.110 %	23°C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	SABIC method
Melt Flow	40 g/10 min @Load 1.20 kg, Temperature 300 °C	40 g/10 min @Load 2.65 lb, Temperature 572 °F	cm ³ /10 min; ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	130 MPa	18900 psi	ISO 2039-1
Tensile Strength at Break	50.0 MPa	7250 psi	50 mm/min; ISO 527
Tensile Strength, Yield	63.0 MPa	9140 psi	50 mm/min; ISO 527
Elongation at Break	67 %	67 %	50 mm/min; ISO 527
Elongation at Yield	5.5 %	5.5 %	50 mm/min; ISO 527
Tensile Modulus	2.35 GPa	341 ksi	1mm/min; ISO 527
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Flexural Modulus	2.30 GPa	334 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	40.0 kJ/m ²	19.0 ft-lb/in ²	80*10*3; ISO 180/1A
	12.0 kJ/m ² @Temperature -30.0 °C	5.71 ft-lb/in ² @Temperature -22.0 °F	80*10*3; ISO 180/1A
Izod Impact, Unnotched (ISO)	NB	NB	80*10*3; ISO 180/1U
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	80*10*3; ISO 180/1U
Charpy Impact, Notched	4.50 J/cm ²	21.4 ft-lb/in ²	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	1.30 J/cm ² @Temperature -30.0 °C	6.19 ft-lb/in ² @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.10e+17 ohm-cm	>= 1.10e+17 ohm-cm	ASTM D257
Surface Resistance	>= 1.04e+19 ohm	>= 1.04e+19 ohm	ASTM D257

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 23.0 - 80.0 $^{\circ}\text{C}$	38.9 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 73.4 - 176 $^{\circ}\text{F}$	ISO 11359-2
Hot Ball Pressure Test	125 $^{\circ}\text{C}$	257 $^{\circ}\text{F}$	IEC 60695-10-2
Deflection Temperature at 0.46 MPa (66 psi)	134 $^{\circ}\text{C}$	273 $^{\circ}\text{F}$	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	121 $^{\circ}\text{C}$	250 $^{\circ}\text{F}$	1.8 MPa Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	138 $^{\circ}\text{C}$	280 $^{\circ}\text{F}$	Rate B/50; ISO 306
	144 $^{\circ}\text{C}$	291 $^{\circ}\text{F}$	Rate A/50; ISO 306

Processing Properties	Metric	English	Comments
Processing Temperature	60.0 - 80.0 $^{\circ}\text{C}$	140 - 176 $^{\circ}\text{F}$	Hopper Temperature
Nozzle Temperature	270 - 290 $^{\circ}\text{C}$	518 - 554 $^{\circ}\text{F}$	Injection Molding
Zone 1	260 - 280 $^{\circ}\text{C}$	500 - 536 $^{\circ}\text{F}$	
Zone 2	270 - 290 $^{\circ}\text{C}$	518 - 554 $^{\circ}\text{F}$	
Zone 3	280 - 300 $^{\circ}\text{C}$	536 - 572 $^{\circ}\text{F}$	
Melt Temperature	280 - 300 $^{\circ}\text{C}$	536 - 572 $^{\circ}\text{F}$	
Mold Temperature	80.0 - 100 $^{\circ}\text{C}$	176 - 212 $^{\circ}\text{F}$	
Drying Temperature	120 $^{\circ}\text{C}$	248 $^{\circ}\text{F}$	Injection Molding
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	Injection Molding
Moisture Content	0.020 %	0.020 %	