SABIC Innovative Plastics Lexan® HFD4412 PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Lexan* HFD4412 is a 20% glass filled, injection moldable grade designed for high flow and superior surface appearance. Internal mold release.

Order this product through the following link:
http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-HFD4412-PC-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.30 g/cc	1.30 g/cc	ASTM D792
Density	1.35 g/cc	0.0488 lb/in³	ISO 1183
Moisture Absorption	0.120 %	0.120 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.30 %	0.30 %	ISO 62
Linear Mold Shrinkage, Flow	0.0010 - 0.0030 cm/cm @Thickness 3.20 mm	0.0010 - 0.0030 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0010 - 0.0030 cm/cm @Thickness 3.20 mm	0.0010 - 0.0030 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	15 g/10 min @Load 1.20 kg, Temperature 300 °C	15 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	14 g/10 min @Load 1.20 kg, Temperature 300 °C	14 g/10 min @Load 2.65 lb, Temperature 572 °F	MVR [cm^3/10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	96.0 MPa	13900 psi	Type I, 5 mm/min; ASTM D638
	110 MPa	16000 psi	5 mm/min; ISO 527
Tensile Strength, Yield	96.0 MPa	13900 psi	Type I, 5 mm/min; ASTM D638
	110 MPa	16000 psi	5 mm/min; ISO 527
Elongation at Break	2.7 %	2.7 %	5 mm/min; ISO 527
Elongation at Yield	2.8 %	2.8 %	5 mm/min; ISO 527
	3.0 %	3.0 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	6.40 GPa	928 ksi	5 mm/min; ASTM D638

Mechanical Properties	Metric	English	Comments
Flexural Yield Strength	159 MPa	23100 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	5.85 GPa	848 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	1.09 J/cm	2.04 ft-lb/in	ASTM D256
Izod Impact, Unnotched	8.30 J/cm	15.5 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	7.00 kJ/m²	3.33 ft-lb/in²	80*10*3; ISO 180/1A
	7.00 kJ/m² @Temperature -30.0 °C	3.33 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1A
Izod Impact, Unnotched (ISO)	42.0 kJ/m²	20.0 ft-lb/in²	80*10*3; ISO 180/1U
	40.0 kJ/m² @Temperature -30.0 °C	19.0 ft-lb/in² @Temperature -22.0 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched	4.30 J/cm²	20.5 ft-lb/in²	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	4.80 J/cm² @Temperature -30.0 °C	22.8 ft-lb/in² @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	0.800 J/cm²	3.81 ft-lb/in²	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	0.800 J/cm² @Temperature -30.0 °C	3.81 ft-lb/in² @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	21.0 J @Temperature 23.0 °C	15.5 ft-lb @Temperature 73.4 °F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	30.0 µm/m-°C @Temperature -40.0 - 40.0 °C	16.7 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	30.0 µm/m-°C @Temperature 23.0 - 80.0 °C	16.7 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C @Temperature -40.0 - 40.0 °C	38.9 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-2

Thermal Properties	Metric	English	Comments
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Deflection Temperature at 0.46 MPa (66 psi)	130 °C @Thickness 3.20 mm	266 °F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	127 °C	261 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	125 °C @Thickness 3.20 mm	257 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	143 °C	289 °F	Rate B/120; ISO 306
UL RTI, Electrical	80.0 °C	176 °F	UL 746B
UL RTI, Mechanical with Impact	80.0 °C	176 °F	UL 746B
UL RTI, Mechanical without Impact	80.0 °C	176 °F	UL 746B
Flammability, UL94	HB @Thickness 0.300 mm	HB @Thickness 0.0118 in	UL 94
Glow Wire Test	850 °C	1560 °F	IEC 60695-2-13
	960 °C @Thickness 2.00 mm	1760 °F @Thickness 0.0787 in	IEC 60695-2-12

Descriptive Properties	Value	Comments
Ball Pressure Test, 125°C +/- 2°C	PASSES	IEC 60695-10-2

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China