

## SABIC Innovative Plastics Lexan® HFD4211 PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Lexan® HFD4211 is a 10% 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-HFD4211-PC-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-HFD4211-PC-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.27 g/cc	1.27 g/cc	ASTM D792
Density	1.25 g/cc	0.0452 lb/in <sup>3</sup>	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	0.0020 - 0.0040 cm/cm @Thickness 3.20 mm	0.0020 - 0.0040 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0020 - 0.0040 cm/cm @Thickness 3.20 mm	0.0020 - 0.0040 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	18 g/10 min @Load 1.20 kg, Temperature 300 °C	18 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238
Melt Index of Compound	12 g/10 min @Load 1.20 kg, Temperature 300 °C	12 g/10 min @Load 2.65 lb, Temperature 572 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	46.0 MPa	6670 psi	Type I, 5 mm/min; ASTM D638
	59.0 MPa	8560 psi	5 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	Type I, 5 mm/min; ASTM D638
	68.0 MPa	9860 psi	5 mm/min; ISO 527
Elongation at Break	3.2 %	3.2 %	5 mm/min; ISO 527
Elongation at Yield	2.7 %	2.7 %	5 mm/min; ISO 527
	3.1 %	3.1 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	4.12 GPa	598 ksi	5 mm/min; ASTM D638

Mechanical Properties	Metric	English	Comments
Flexural Yield Strength	102 MPa	14800 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	3.69 GPa	535 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	1.20 J/cm	2.25 ft-lb/in	ASTM D256
Izod Impact, Unnotched	12.6 J/cm	23.6 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	6.00 kJ/m <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1A
	6.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	2.86 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*3; ISO 180/1A
Izod Impact, Unnotched (ISO)	64.0 kJ/m <sup>2</sup>	30.5 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1U
	60.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	28.6 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched	7.50 J/cm <sup>2</sup>	35.7 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	8.10 J/cm <sup>2</sup> @Temperature -30.0 °C	38.5 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	0.700 J/cm <sup>2</sup> @Temperature -30.0 °C	3.33 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	50.0 J	36.9 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	40.0 µm/m-°C	22.2 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
	40.0 µm/m-°C	22.2 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	80.0 µm/m-°C	44.4 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-2

Thermal Properties	@Temperature 23.0 - Metric 30.0 °C	@Temperature 73.4 - English 170 °F	Comments
Deflection Temperature at 0.46 MPa (66 psi)	129 °C @Thickness 3.20 mm	264 °F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	126 °C	259 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	123 °C @Thickness 3.20 mm	253 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	141 °C	286 °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 1.00 mm	1760 °F @Thickness 0.0394 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.

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