

## SABIC Innovative Plastics Lexan® 3413R PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

LEXAN 3413R is a high viscosity, 30% glass reinforced, flame retardant grade, especially designed for applications requiring high rigidity together with high heat resistance.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Lexan-3413R-PC-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-3413R-PC-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.110 %	0.110 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.26 %	0.26 %	ISO 62
Linear Mold Shrinkage, Flow	0.0010 - 0.0040 cm/cm	0.0010 - 0.0040 in/in	on Tensile Bar; SABIC Method
Melt Index of Compound	5.0 g/10 min @Load 1.20 kg, Temperature 300 °C	5.0 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	100 MPa	14500 psi	5 mm/min; ISO 527
Elongation at Break	2.0 %	2.0 %	5 mm/min; ISO 527
Tensile Modulus	9.00 GPa	1310 ksi	1 mm/min; ISO 527
Flexural Strength	130 MPa	18900 psi	2 mm/min; ISO 178
Flexural Modulus	7.00 GPa	1020 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	7.00 kJ/m <sup>2</sup>	3.33 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)	35.0 kJ/m <sup>2</sup>	16.7 ft-lb/in <sup>2</sup>	80*10*3; ISO 180/1U
	35.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	16.7 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched	4.00 J/cm <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eU
	4.00 J/cm <sup>2</sup> @Temperature -30.0 °C	19.0 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	0.600 J/cm <sup>2</sup>	2.68 ft-lb/in <sup>2</sup>	Edgew 80*10*3 sp=62mm; ISO 179/1eA
	0.500 J/cm <sup>2</sup> @Temperature -30.0 °C	2.38 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eA
Taber Abrasion, mg/1000 Cycles	24	24	CS-17, 1 kg; SABIC Method

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	25.0 µm/m-°C @Temperature 23.0 - 80.0 °C	13.9 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
Thermal Conductivity	0.220 W/m-K	1.53 BTU-in/hr-ft <sup>2</sup> -°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	144 °C	291 °F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	139 °C	282 °F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	145 °C	293 °F	Rate B/120; ISO 306
	147 °C	297 °F	Rate B/50; ISO 306
UL RTI, Electrical	130 °C	266 °F	UL 746B
UL RTI, Mechanical with Impact	125 °C	257 °F	UL 746B
UL RTI, Mechanical without Impact	130 °C	266 °F	UL 746B
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	UL 94
Oxygen Index	38 %	38 %	ISO 4589
Glow Wire Test	850 °C @Thickness 1.00 mm	1560 °F @Thickness 0.0394 in	IEC 60695-2-12
	960 °C @Thickness 1.60 mm	1760 °F @Thickness 0.0630 in	IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant	3.0 @Frequency 1.00e+6	3.0 @Frequency 1.00e+6	IEC 60250

Electrical Properties	Hz Metric	Hz English	Comments
	3.1	3.1	
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	16.0 kV/mm	406 kV/in	
	@Thickness 3.20 mm	@Thickness 0.126 in	in oil; IEC 60243-1
	25.0 kV/mm	635 kV/in	
	@Thickness 1.60 mm	@Thickness 0.0630 in	in oil; IEC 60243-1
	33.0 kV/mm	838 kV/in	
	@Thickness 0.800 mm	@Thickness 0.0315 in	in oil; IEC 60243-1
Dissipation Factor	0.0010	0.0010	
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	IEC 60250
	0.010	0.010	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250

Descriptive Properties	Value	Comments
Ball Pressure Test, 125°C +/- 2°C	PASSES	IEC 60695-10-2
Haze, 2.54 mm	NA%	ASTM D1003

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