








SABIC Lexan® ML3042 Polycarbonate (Europe) (Unverified Data**)

Categories: [Polymer](#); [Thermoplastic](#); [Polycarbonate \(PC\)](#)

Material Notes: Information provided by GE Plastics for their European product line.

Saudi Basic Industries Corporation (SABIC) announced on August 31st, 2007, the completion of its purchase of GE Plastics.

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	1.33 g/cc	0.0480 lb/in ³	ASTM D 792
	1.33 g/cc	0.0480 lb/in ³	ISO 1183
Water Absorption	0.10 %	0.10 %	24 hours; ASTM D 570
Moisture Absorption at Equilibrium	0.12 %	0.12 %	(23 C / 50% RH) 1L; ISO 15512
Water Absorption at Saturation	0.35 %	0.35 %	23C; ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ASTM D 955
Melt Flow	6.0 g/10 min	6.0 g/10 min	cm ³ /10min; Melt Volume Rate, MVR at 300C/1.2 kg; ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	50.0 MPa	7250 psi	50 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	50 mm/min; ISO 527
Elongation at Break	75 %	75 %	50 mm/min; ISO 527
Elongation at Yield	6.0 %	6.0 %	50 mm/min; ISO 527
Tensile Modulus	2.60 GPa	377 ksi	1 mm/min; ISO 527
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Flexural Modulus	2.50 GPa	363 ksi	2 mm/min; ISO 178
Poissons Ratio	0.38	0.38	ASTM D 638
Izod Impact, Notched	7.00 J/cm	13.1 ft-lb/in	23 C; ASTM D 256
	1.50 J/cm	2.81 ft-lb/in	ASTM D 256
	@Temperature -20.0 °C	@Temperature -4.00 °F	
Izod Impact, Notched (ISO)	50.0 kJ/m ²	23.8 ft-lb/in ²	80*10*4 +23 C; ISO 180/ 1A
	15.0 kJ/m ²	7.14 ft-lb/in ²	80*10*4; ISO 180/ 1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	NB	NB	80*10*4 +23 C; ISO 180/ 1U
	NB	NB	80*10*4; ISO 180/ 1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	NB	NB	23C, Unnotch Edgew 80*10*4 sp=62; ISO 179/1eU
	NB	NB	Unnotch Edgew 80*10*4 sp=62; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	5.00 J/cm ²	23.8 ft-lb/in ²	23 C; ISO 179/2C
Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	IEC 60093
Surface Resistivity per Square	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant 	2.7	2.7	IEC 60250
	@Frequency 50 Hz	@Frequency 50 Hz	
	2.7	2.7	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength 	17.0 kV/mm	432 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	
	27.0 kV/mm	686 kV/in	in oil; IEC 60243-1
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	35.0 kV/mm	889 kV/in	in oil; IEC 60243-1
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Dissipation Factor 	0.0010	0.0010	IEC 60250
	@Frequency 50 Hz	@Frequency 50 Hz	
	0.010	0.010	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	225 V	225 V	Electr Grey; IEC 60112/3rd
	250 V	250 V	IEC 60112/3rd
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	60.0 µm/m-°C	33.3 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft ² -°F	ISO 8302
Deflection Temperature at 1.8 MPa (264 psi)	138 °C	280 °F	ASTM D 648
Vicat Softening Point	143 °C	289 °F	VST/B/50; DIN 53460
	143 °C	289 °F	B/50; ISO 306
	145 °C	293 °F	B/120; ISO 306

	148 °C	298 °F	Rate A; ASIM D 1525
	153 °C	307 °F	Rate B; ASTM D 1525
	153 °C	307 °F	VST/A/120; DIN 53460
Flammability, UL94	V-2 @Thickness 1.60 mm	V-2 @Thickness 0.0630 in	UL 94 by GE
Oxygen Index	25 %	25 %	ISO 4589
Glow Wire Test	850 °C @Thickness 1.00 mm	1560 °F @Thickness 0.0394 in	Passes; IEC 60695-2-1

Descriptive Properties

Ball Pressure Test, 125 C +/- 2 C	PASSES	IEC 60035-1
Hot Mandrel Test, 300 C	PASSES	CEE10/IIed

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