

SABIC Innovative Plastics Lexan® ML3021A PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

LEXAN ML3021A is a high viscosity, UV stabilised grade especially designed for injection blow moulding and profile extrusion. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Lexan-ML3021A-PC-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.15 %	0.15 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.35 % @Temperature 23.0 °C	0.35 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on tensile bar; SABIC Method
Melt Flow	4.0 g/10 min @Load 1.20 kg, Temperature 300 °C	4.0 g/10 min @Load 2.65 lb, Temperature 572 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	95.0 MPa	13800 psi	ISO 2039-1
Tensile Strength at Break	65.0 MPa	9430 psi	50 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	50 mm/min; ISO 527
Elongation at Break	>= 50 %	>= 50 %	50 mm/min; ISO 527
Elongation at Yield	6.0 %	6.0 %	50 mm/min; ISO 527
Tensile Modulus	2.40 GPa	348 ksi	1 mm/min; ISO 527
Flexural Yield Strength	85.0 MPa	12300 psi	2 mm/min; ISO 178
Flexural Modulus	2.30 GPa	334 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	13.0 kJ/m ² @Temperature -30.0 °C	6.19 ft-lb/in ² @Temperature -22.0 °F	80*10*3; ISO 180/1A
	75.0 kJ/m ² @Temperature 23.0 °C	35.7 ft-lb/in ² @Temperature 73.4 °F	80*10*3; ISO 180/1A
	NB	NB	

Izod Impact, Unnotched (ISO)		English		80*10*3; ISO 180/1U
Mechanical Properties	Metric		@ Temperature 73.4 °F	Comments
	NB	NB		80*10*3; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F		
Charpy Impact Unnotched	NB	NB		Edgew 80*10*3 sp=62mm; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F		
	NB	NB		Edgew 80*10*3 sp=62mm; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F		
Charpy Impact, Notched	1.60 J/cm ²	7.61 ft-lb/in ²		V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F		
	3.00 J/cm ²	14.3 ft-lb/in ²		ISO 179/2C
	@Temperature 23.0 °C	@Temperature 73.4 °F		
	8.00 J/cm ²	38.1 ft-lb/in ²		V-notch Edgew 80*10*3 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F		
Taber Abrasion, mg/1000 Cycles	10	10		CS-17; SABIC Method
	@Load 1.00 kg	@Load 2.20 lb		

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	67.0 µm/m-°C	37.2 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Thermal Conductivity	0.170 W/m-K	1.18 BTU-in/hr-ft ² -°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	140 °C	284 °F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	131 °C	268 °F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	143 °C	289 °F	Rate B/50; ISO 306
	146 °C	295 °F	Rate B/120; ISO 306
	150 °C	302 °F	Rate A/50; ISO 306
Flammability, UL94	V-2	V-2	UL 94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Oxygen Index	25 %	25 %	LOI; ISO 4589
Glow Wire Test	850 °C	1560 °F	Glow Wire Flammability Index; IEC 60695-2-12

Thermal Properties	@Thickness 1.00 mm Metric	@Thickness 0.0394 in English	Comments
Optical Properties	Metric	English	Comments
Refractive Index	1.586	1.586	ISO 489
Haze	<= 0.80 % @Thickness 2.54 mm	<= 0.80 % @Thickness 0.100 in	ASTM D 1003
Transmission, Visible	88 - 90 % @Thickness 2.54 mm	88 - 90 % @Thickness 0.100 in	ASTM D 1003

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	2.7 @Frequency 1.00e+6 Hz	2.7 @Frequency 1.00e+6 Hz	IEC 60250
	2.7 @Frequency 50.0 - 60.0 Hz	2.7 @Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	15.2 kV/mm @Thickness 1.00 mm	386 kV/in @Thickness 0.0394 in	short time; IEC 60243-1
	17.0 kV/mm @Thickness 3.20 mm	432 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
	27.0 kV/mm @Thickness 1.60 mm	686 kV/in @Thickness 0.0630 in	in oil; IEC 60243-1
	35.0 kV/mm @Thickness 0.800 mm	889 kV/in @Thickness 0.0315 in	in oil; IEC 60243-1
Dissipation Factor	0.0010 @Frequency 50.0 - 60.0 Hz	0.0010 @Frequency 50.0 - 60.0 Hz	IEC 60250
	0.010 @Frequency 1.00e+6 Hz	0.010 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	>= 125 V	>= 125 V	IEC 60112
	225 V	225 V	IEC 60112

Electrical Properties	Metric	English	Comments
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