

Canovelles, March 2023

The company Mercantil Luz Negra, S.L. with registrated office in  
 C/Carles Buhigues 13, Polígono Industrial Can Castells, 08420 Canovelles (Barcelona, Spain)

# CERTIFIES

That the following products described here have been carried out the relevant technical tests and tests and that they have been satisfactory according to the regulations in force (data issued by the manufacturer of the product):

Product reference: **18.024 / 18.027**  
 Product name: **frosted easy-on ip65 polycarbonate cover for led profile xl (l=2m)**  
**frosted easy-on ip65 polycarbonate cover for led profile xl (l=6m)**

## Calibre 603-3 certificate

Main characteristics:

- Very high melt strength
- Good impact resistance

Applications

- Complex multi-wall sheet
- Profiles

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm <sup>3</sup>	1.20 g/cm <sup>3</sup>	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	3.0 g/10 min	3.0 g/10 min	ISO 1133
Molding Shrinkage-Flow	5.0E-3 to 7.0E-3 in/in	0.50 to 0.70 %	ISO 294-4
Water Absorption			ISO 62
73°F (23°C), 24h	0.15 %	0.15 %	
Equilibrium, 73°F (23°C), 50% RH	0.32 %	0.32 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	334000 psi	2300 MPa	ISO 527-2/50
Tensile stress			ISO 527-2/50
Yield	8990 psi	62.0 MPa	
Break	9570 psi	66.0 MPa	
Tensile strain			ISO 527-2/50
Yield	6.0 %	6.0 %	
Break	90 %	90 %	
Flexural Modulus	334000 psi	2300 MPa	ISO 178
Flexural Stress	13600 psi	94.0 Mpa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strenght			ISO 179/1eA
-22°F (-30°C)	7.6 ft·lb/in <sup>2</sup>	16 KJ/m <sup>2</sup>	
73°F (23°C)	26 ft·lb/in <sup>2</sup>	55 KJ/m <sup>2</sup>	
Notched Izod Impact Strenght			ISO 180/A
-22°F (-30°C)	7.1 ft·lb/in <sup>2</sup>	15 KJ/m <sup>2</sup>	
73°F (23°C)	38 ft·lb/in <sup>2</sup>	80 KJ/m <sup>2</sup>	

<b>Thermal</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Heat Deflection Temperature			
66 psi (0.4 MPa), Annealed	293 °F	145 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	259 °F	126 °C	ISO 75-2/A
264 psi (1.8 MPa), Annealed	288 °F	142 °C	ISO 75-2/A
Vicat softening Temperature	302 °F	150 °C	ISO 306/B50
CLTE-Flow	3.9E-5 in/in/°F	7.0E-5 cm/cm/°C	ISO 11359-2

<b>Electrical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Comparative Tracking Index			ISO 60112
0.0787 in (2.00 mm), Solution A	250 V	250 V	

<b>Flammability</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Flame Rating			UL94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Glow Wire Flammability Index			IEC 60695-2-12
0.04 in (1.0 mm)	1650 °F	900 °C	
0.08 in (2.0 mm)	1610 °F	875 °C	
0.12 in (3.0 mm)	1610 °F	875 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.04 in (1.0 mm)	1430 °F	775 °C	
0.08 in (2.0 mm)	1430 °F	775 °C	
0.12 in (3.0 mm)	1430 °F	775 °C	

<b>Optical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Refractive Index	1.586	1.586	ISO 489
Transmittance	89.0 %	89.0 %	ASTM D1003
Haze	1.0 %	1.0 %	ASTM D1003

The product described has been tested according to the standards listed above and under Directives 2014/35/EU and 2014/30/EU. It is possible to use the CE marking.

The certificate is issued under the responsibility of the manufacturer (data issued by the manufacturer). And to record for the purposes that come and at the request of the interested party, is issued in this Certificate.



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## UL certificate

Callbre 602, 603

Polycarbonate (PC) pellets.

Note: Material designations may be followed by numbers and/or letters representing colour and/or granulation and/or lubrication.

Flammability	Value	Test Method
Flame Rating		UL94
1.5 mm, NC	HB	
3.0 mm, NC	HB	
Flammability		IEC 60695-11-10, -20
1.5 mm, NC	HB75	
3.0 mm, NC	HB40	

Electrical	Value	Test Method
High Amp Arc Ignition (HAI)		UL746
1.5 mm, NC	PLC 0	
3.0 mm, NC	PLC 0	
Comparative Tracking Index (CTI)	PLC 0	UL746
Dielectric Strength	17kV/mm	ASTM D149
High Voltage Arc Tracking Rate (HVTR)	PLC 0	UL746
Volume Resistivity	1.0E+15 ohms·cm	ASTM D257
Volume Resistivity	1.0E+15 ohms·cm	IEC 60093
Arc Resistance	PLC 5	ASTM D495
Electric Strength	17kV/mm	IEC 60243-1

Thermal	Value	Test Method
RTI Elec		UL746
1.5 mm	80.0°C	
3.0 mm	80.0°C	
RTI Imp		UL746
1.5 mm	80.0°C	
3.0 mm	80.0°C	
RTI Str		UL746
1.5 mm	80.0°C	
3.0 mm	80.0°C	

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<b>Physical</b>	<b>Value</b>	<b>Test Method</b>
Dimensional stability	0.0%	ASTM D1042
Dimensional stability	0.0%	ISO 2796

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CERTIFICATE