



LA MISOLET

Working Of Electric And Thermo Insulating Materials

CNC machining by customers' drawing
Blanked findings
Direct selling
Sheets and panels – Rods – Tubes made of:
Bakelized Cloth and Bakelized Paper
Epoxy Glass Nema G10 and G11,
Silicone Nema G7 and Melamine Nema G5
Polyester Glass GPO3
Thermo Insulating Materials – Mica, Micanite
TOOLING, BLANKING AND DIEMAKING

DATA SHEET

Laminate: **LGPO**

Description: Glass mat and antitracking polyester resin laminate

According to specifications	CEI 15/10 CEI EN 60893 DIN 7735 NEMA LI - 1	PV UP GM 203 Hm 2471 GPO3	Unit	Average values	Test method	Test conditions
Physical properties	Colour			red or white		
	Specific gravity		g/cm ³	1,8	ISO 1183	a
	Water absorption mm 3		mg	49	IEC 60893-2	b + d
	Thermal classification		°C	F (155°C)	IEC 60216	-
	Self extinguish.th. ≥ 2,4 Standard th. < 2,4 mm If required th. < 2,4 mm (Only for red color)			V0 HB V0	UL 94 UL 94 UL 94	-
	Thermal conductivity		W/mK	0,3	ISO 8302	-
	Expansion coefficient		10 ⁻⁶ /K	20	VDE 0304/VSM	-
	Silicone resin content		%	-	IEC 371-2	-
	Mica content		%	-	IEC 371-2	-
Mechanical properties	Flexural strength ⊥		MPa	130	ISO 178	a
	Charpy impact strength //		KJ/m ²	35	ISO 179	a
	Tensile strength		MPa	70	ISO 527	a
	Compressive strength ⊥		MPa	260	ISO 604	-
	Bonding strength //		N	4000	ASTM D229	a
	Modulus of elasticity		MPa	8000	ISO 178	a
Dielectrical properties	Insulation resistance		MΩ	5x10 ²	ISO 60167	d
	Breakdown voltage		KV	30	ISO 60243-1	e
	Dielectric strength ⊥ to lamination		KV/mm	10	ISO 60243-1	e
	Tracking resistance		V	600	IEC 60112	a
	Arc resistance		S	180	ASTM D495	a
	Tracking and erosion resistance		Class	IB 2,5	IEC 60587	
	Dissipation factor at 1 MHz			0,05	IEC 60250	d
	Dielectric constant (permittivity) at 1 MHz			4,5	IEC 60250	d

Other information : the material is halogen free and flame retardant.

Low smoke emission and toxicity in case of fire according to EN 45545-2 – R22:HL2 / R23:HL3

We inform you that the data reported on the data sheet are provided to the end user for the sole purpose of providing a range of parameters in order to assess the hypothetical suitability of the product to the actual use of the same, therefore to be considered indicative as they represent average values from laboratory tests. **The user must then test the product to determine its properties and its suitability for its intended use.**

Misolet s.r.l expressly disclaims all liability for any damage, injury and costs to persons and/or property, arising directly or indirectly from the use of the product that has not been preceded by tests with respect to the conditions of use to which the same will be intended. The data contained in this data sheet does not constitute a guarantee of any kind, express or implied, including any suitability for a particular use or purpose.

Test condition:

- a)** 48h 15-35°C 45/75 % relative humidity **b)** 1h 105°C **c)** 24h 105°C **d)** 24h 23°C in water
e) 48h 50°C in water **f)** 24h 120°C in oil **g)** 96h 45°C 95% relative humidity

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Laminate:

LGPO

THICKNESS mm	TOLERANCE	Particular properties:
0,8	± 0,23	- Good mechanical properties - Suitable for punching up to and including 6 mm - Good dielectric characteristics
1,0	± 0,23	
1,5	± 0,25	
2,0	± 0,25	
2,5	± 0,30	
3,0	± 0,35	
4,0	± 0,35	
5,0	± 0,35	
6,0	± 0,40	
8,0	± 0,45	
10,0	± 0,50	
12,0	± 0,55	
15,0	± 0,75	
20,0	± 0,75	
25,0	± 0,85	
30,0	± 0,97	
35,0	± 1,10	
40,0	± 1,10	
50,0	± 1,25	
60,0	± 1,50	
-	-	
-	-	
-	-	
-	-	

TO BE KEPT in dry stores, in a horizontal position

We are available to effect cutting to measurement as well as machining to drawing of parts by CNC

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