

Technical Information

Sheets GPO3

Revised Date: 01/07/2019

Ref: IEC60893-2-UPGM203.

1. COMPOSITION AND PRESENTATION

GPO3 is a mould pressing insulator made from fiberglass combine mat and polyester resin. At delivery time the presentation of the sheets is as follows:

- Normal sizes: 1000X2000mm
- Available size: 1180X2900/1250X2000/1250X2500/580X5800mm
- Colour: White/ Red/Light green / other any color
- On demand we can deliver strips or finished components.
- Thickness: 0.8-100mm
- Surfaces: Shining

2. PROPERTIES.

- Very low hygrometric susceptibility
- Excellent mechanical properties when cold
- Workable while cold up to 3 mm thick
- Small losses at high frequency
- Good dielectric properties

3. APPLICATIONS.

Very convenient for equipment on high frequencies and in general for all elements put under high dynamic stresses with high resistance to fatigue.

4. FLATNESS (mm ±) (test method: see 4.2 of IEC 60893-2)

Thickness (d)	Length of straight edge	
	1000	500
3 < d ≤ 6	10	2.5
6 < d ≤ 8	8	2.0
8 < d	6	1.5

5. TOLERANCE ON WIDTH OF CUT STRIPS (mm ±) (minus tolerance only / test method: see 4.1 of IEC 60893-2)

Nominal thickness (d)	Nominal width					
	3 < d ≤ 50	50 < d ≤ 100	100 < d ≤ 160	160 < d ≤ 300	300 < d ≤ 500	500 < d ≤ 600
0.8	0.5	0.5	0.5	0.6	1.0	1.0
1.0	0.5	0.5	0.5	0.6	1.0	1.0
1.2	0.5	0.5	0.5	1.0	1.2	1.2
1.5	0.5	0.5	0.5	1.0	1.2	1.2
2.0	0.5	0.5	0.5	1.0	1.2	1.5
2.5	0.5	1.0	1.0	1.5	2.0	2.5
3.0	0.5	1.0	1.0	1.5	2.0	2.5
4.0	0.5	2.0	2.0	3.0	4.0	5.0
5.0	0.5	2.0	2.0	3.0	4.0	5.0

NOTE: Unilateral, all-negative tolerance are normally applied to the width of cut strips, and are given in the above table, other tolerance may be agreed upon between purchase and supplier.

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6. NORMAL THICKNESS (mm ±) (test method: see 4.1 of IEC 60893-2)

Normal Thickness	Tolerance	Normal Thickness	Tolerance
0.8	0.23	16	1.10
1.0	0.23	20	1.30
1.2	0.23	25	1.40
1.5	0.25	30	1.45
2.0	0.25	35	1.50
2.5	0.30	40	1.55
3.0	0.35	45	1.65
4.0	0.40	50	1.75
5.0	0.55	60	1.90
6.0	0.60	70	2.0
8.0	0.70	80	2.20
10.0	0.80	90	2.35
12.0	0.90	100	2.50
14.0	1.00		

If need un-normal thickness, the tolerance will be confirmed by the seller and the buyer each other before placing the order .

7. MAIN TECHNICAL CHARACTERISTICS

ITEMS	CONDITIONS	TEST METHOD	VALUES	
Water absorption, 3.0 mm	24 h	IEC 60893-2-8.2	55 mg	
Flexural strength	23 ± 2 °C	IEC 60893-2-5.1	130MPa min.	
Charpy impact strength (parallel)	23 ± 2 °C	IEC 60893-2-5.4.2	30 KJ/m ² min.	
Izod impact strength (parallel)	23 ± 2 °C	IEC 60893-2-5.4.3	30 KJ/m ² min.	
Electric strength (perpendicular)	in transformer oil at 90 ± 2 °C	IEC 60893-2-6.1	<3.0mm, 9.0 KV/mm min.	
Break down voltage (parallel)	in transformer oil at 90 ± 2 °C	IEC 60893-2-6.1	> 3.0mm 35 KV min.	
Insulating resistances After immersion in water	23 ± 2 °C	IEC 60893-2-6.3	5.0 X 10 ⁸ Ω min.	
Proof tracking index	23	IEC 60893-2-6.4	500	
Tracking and erosion resistance	--	IEC 60893-2-6.5	IB 2.5	
Arc resistance	s	IEC 61621	≥180	
Tracking resistance	PTI	V	IEC60112	≥600
	CTI		IEC60112	≥600
Flammability		IEC 60893-2-7.2	V-0	