



**EuroAsia**

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## Technical Information

### GPO3

Ref: IEC60893-2-UPGM203 / GPO3

#### 1. COMPOSITION AND PRESENTATION

Mould pressing insulator made from fiberglass combine mat and polyester resin.

At delivery time the presentation of the sheets is as follows:

- Normal sizes: 1020X2010
- Thickness: 0.8-100mm
- Colour: White/ Red
- Surfaces: Shining
- On demand we can deliver strips or finished components.

#### 2. PROPERTIES.

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

#### 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
$3 < d \leq 6$	10	2.5
$6 < d \leq 8$	8	2.0
$8 < d$	6	1.5

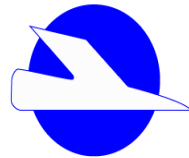
#### 5. TOLERANCE ON WIDTH OF CUT STRIPS (mm ±)

( minus tolerance only / test method: see 4.1 of IEC 60893-2)

Nominal thickness (d)	Nominal width					
	$3 < d \leq 50$	$50 < d \leq 100$	$100 < d \leq 160$	$160 < d \leq 300$	$300 < d \leq 500$	$500 < d \leq 600$
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
Thermic endurance		in transformer oil for 4 hours	IEC 60893-2-7.1	155 °C ( F)
Water absorption, 3.0 mm		24 h	IEC 60893-2-8.2	55 mg
Specific weight		23± 2 °C	IEC 60893-2	1.90 ± 0.5 g/cm <sup>3</sup>
Flexural strength ( perpendicular )		23 ± 2 °C	IEC 60893-2-5.1	130 MPa min.
		150 ± 5 °C		65 MPa min.
Izod impact strength ( parallel )		23 ± 2 °C	IEC 60893-2-5.4.3	30 KJ/m <sup>2</sup> 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 <sup>8</sup> Ω min.
Arc resistance		s	IEC 61621	≥180
Tracking resistance	PTI	V	IEC60112	≥600
	CTI		IEC60112	≥600
Flammability			IEC 60893-2-7.2	V-0

