


G-Etronax PM GPO 3 - Sheet

Components: Glass mat - Polyester
Colour*: 
Serial no.: 420
Version no.:

Closest relevant standards

IEC 60893: UP GM203
DIN 7735: Hm 2471
NEMA LI 1: GPO 3

| Mechanical properties | Test method | Thickness | Value | Unit | |
|--|-------------|-----------|-------|-------------------|----|
| Bending strength at RT | ISO 178 | ≥ 1,5 mm | 160 | MPa | *1 |
| Bending strength at a high temperature | ISO 178 | ≥ 1,5 mm | 70 | MPa | *A |
| Modulus of elasticity | ISO 178 | ≥ 1,5 mm | 10000 | MPa | *1 |
| Compressive strength | ISO 604 | ≥ 5 mm | 240 | MPa | *1 |
| Izod impact strength, parallel with layers | ISO 180/2A | ≥ 5 mm | 50 | KJ/m ² | *1 |
| Shearing strength, parallel | ISO 60893-2 | ≥ 5 mm | 20 | MPa | *1 |
| Tensile strength | ISO 527 | ≥ 1,6 mm | 100 | MPa | *1 |

| Electrical properties | Test method | Thickness | Value | Unit | |
|---|---------------|-----------|-------|---------|----|
| Electrical strength in oil at 90°C, perpendicular | IEC 60243-1 | 3 mm | 12 | kV/mm | *2 |
| Electrical strength in oil at 90°C, parallel | IEC 60243-1 | ≥ 3 mm | 60 | kV/25mm | *2 |
| Permittivity 50 MHz | IEC 62631-2-1 | ≤ 3 mm | 4 | | *3 |
| Permittivity 1 MHz | IEC 62631-2-1 | ≤ 3 mm | 4 | | *3 |
| Dissipation factor 50 MHz | IEC 62631-2-1 | ≤ 3 mm | 0.04 | | *3 |
| Dissipation factor 1 MHz | IEC 62631-2-1 | ≤ 3 mm | 0.04 | | *3 |
| Insulation resistance after submersion in water | IEC 62631-3-3 | All | 1000 | MΩ | *4 |
| Comparative tracking index | IEC 60112 | ≥ 3 mm | 600 | CTI | *1 |

Conditioning

- 24h/23°C/50%RH
- 24h/23°C/50%RH + 1h/ in oil at 90°C
- 96h/105°C + 1h/23°C/20%RH
- 24h/50°C/<20% RH + 24h in water at 23°C
- 96h/105°C + 1h/ in oil at 90°C

Notes

- 1h/130°C / measured at 130°C
- 1h/150°C / measured at 150°C
- Halogen free
- 1h/180°C / measured at 180°C
- 1h/200°C / measured at 200°C

The above values are average values resulting from extensive tests in our laboratories. ELEKTRO-ISOLA A/S disclaims any and all liability for the performance of our materials in applications outside our control. Elektro-Isola A/S reserves the right to modify the above data without notice or further information. Furthermore, we refer to our general disclaimer.

* Note that color and surface are indicative. As this is a technical product, colour and expression may vary according to dimensions, batches and machining. If you want further information or have special decorative needs, please feel free to contact us.

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| Physical and thermal properties | Test method | Thickness | Value | Unit | |
|-----------------------------------|----------------------------|------------|-------|-------------------|---|
| Temperature index 20,000 h (T.I.) | IEC 60216 | ≥ 3 mm | 155 | °C | - |
| Fire class | IEC 60695-11-10 | ≥ 3 mm | V-0 | - | - |
| Density | ISO 1183-A | All | 1.85 | g/cm ³ | - |
| Water absorption | ISO 62-1 | 50x50x3 mm | 30 | mg | - |
| Smoke emission & toxicity | EN 45545-2; R22, R23 & R24 | - | - | - | - |
| Oxygen Index (OI) | EN ISO 4589-2 | - | - | % | - |
| Smoke density (Ds max) | EN ISO 5659-2 | - | - | - | - |
| Smoke density (Ds max) | EN ISO 5659-2 | - | - | - | - |
| Toxicity (CIT _{NLP}) | NF X70-100-1/-2 | - | - | - | - |

Characteristics and applications

Thermal class F material characterised by good electrical properties such as a high disruptive voltage in air and oil, the highest arc and tracking current resistance. Self-extinguishing. Low smoke production, halogen-free. Used as insulation material in electrotechnical constructions such as cabinet-installed switchboard systems, dividing plates and rail supports.

Conditioning

- 1 24h/23°C/50%RH
- 2 24h/23°C/50%RH + 1h/ in oil at 90°C
- 3 96h/105°C + 1h/23°C/20%RH
- 4 24h/50°C/<20% RH + 24h in water at 23°C
- 5 96h/105°C + 1h/ in oil at 90°C

Notes

- A 1h/130°C / measured at 130°C
- B 1h/150°C / measured at 150°C
- C Halogen free
- D 1h/180°C / measured at 180°C
- E 1h/200°C / measured at 200°C

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