

## G-Etronax B - Sheet

**Components:** Glass fabric - Phenol  
**Colour\*:**   
**Serial no.:** 300  
**Version no.:** V1.0-17/06/15

### Closest relevant standards

**IEC 60893:** PF GC 201  
**DIN 7735:** Hgw 2072  
**NEMA LI 1:** G-3

Please note that this material is only available on request for larger quantities. Contact us to hear more about the possibilities.

| Mechanical properties                      | Test method | Thickness | Value | Unit              |    |
|--|-------------|-----------|-------|-------------------|----|
| Bending strength at RT                     | ISO 178     | ≥ 1,5 mm  | 350   | MPa               | *1 |
| Bending strength at a high temperature     | ISO 178     | ≥ 1,5 mm  | -     | MPa               | -  |
| Modulus of elasticity                      | ISO 178     | ≥ 1,5 mm  | 19000 | MPa               | *1 |
| Compressive strength                       | ISO 604     | ≥ 5 mm    | 500   | MPa               | *1 |
| Izod impact strength, parallel with layers | ISO 180/2A  | ≥ 5 mm    | 55    | KJ/m <sup>2</sup> | *1 |
| Shearing strength, parallel                | ISO 60893-2 | ≥ 5 mm    | 50    | MPa               | *1 |
| Tensile strength                           | ISO 527     | ≥ 1,6 mm  | 250   | MPa               | *1 |

| Electrical properties                             | Test method   | Thickness | Value | Unit    |    |
|---|---------------|-----------|-------|---------|----|
| Electrical strength in oil at 90°C, perpendicular | IEC 60243-1   | 3 mm      | 10    | kV/mm   | *2 |
| Electrical strength in oil at 90°C, parallel      | IEC 60243-1   | ≥ 3 mm    | 30    | kV/25mm | *2 |
| Permittivity 50 MHz                               | IEC 62631-2-1 | ≤ 3 mm    | 5     |         | *3 |
| Permittivity 1 MHz                                | IEC 62631-2-1 | ≤ 3 mm    | -     |         | -  |
| Dissipation factor 50 MHz                         | IEC 62631-2-1 | ≤ 3 mm    | 0.03  |         | *3 |
| Dissipation factor 1 MHz                          | IEC 62631-2-1 | ≤ 3 mm    | -     |         | -  |
| Insulation resistance after submersion in water   | IEC 62631-3-3 | All       | 1000  | MΩ      | *4 |
| Comparative tracking index                        | IEC 60112     | ≥ 3 mm    | 100   | 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        | 1.95  | g/cm <sup>3</sup> | - |
| Water absorption                    | ISO 62-1                   | 50x50x3 mm | 40    | 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 <sub>NLP</sub> )      | NF X70-100-1/-2            | -          | -     | -                 | - |
| Toxicity (CIT <sub>G</sub> , 8 min) | EN 17084                   | -          | -     | -                 | - |

### Characteristics and applications

High performance/price ratio, thermal class F insulation material, self-extinguishing, halogen-free, very low smoke production – meets ASTM F814-83. Mechanically significantly stronger than the Etronit and Etronax types.

### 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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