

# Arnite<sup>®</sup> TV4 241 SN

## PBT–GF20 FR(17)

20% Glass Fiber Reinforced, Flame Retardant

Print Date: 2025–10–04

| PROPERTIES                                   | TYPICAL DATA | UNIT                   | TEST METHOD     |
|--|--------------|------------------------|-----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                | <b>VALUE</b> |                        |                 |
| Melt volume–flow rate                        | 19           | cm <sup>3</sup> /10min | ISO 1133        |
| Temperature                                  | 250          | °C                     | ISO 1133        |
| Load   | 2.16         | kg                     | ISO 1133        |
| <b>MECHANICAL PROPERTIES</b>                 | <b>VALUE</b> |                        |                 |
| Tensile modulus                              | 8200         | MPa                    | ISO 527–1/–2    |
| Stress at break                              | 110          | MPa                    | ISO 527–1/–2    |
| Strain at break                              | 2.5          | %                      | ISO 527–1/–2    |
| Flexural modulus                             | 7700         | MPa                    | ISO 178         |
| Flexural strength                            | 165          | MPa                    | ISO 178         |
| Charpy impact strength (+23°C)               | 50           | kJ/m <sup>2</sup>      | ISO 179/1eU     |
| Charpy impact strength (–30°C)               | 50           | kJ/m <sup>2</sup>      | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | 7            | kJ/m <sup>2</sup>      | ISO 179/1eA     |
| Charpy notched impact strength (–30°C)       | 6            | kJ/m <sup>2</sup>      | ISO 179/1eA     |
| <b>THERMAL PROPERTIES</b>                    | <b>VALUE</b> |                        |                 |
| Melting temperature (10°C/min)               | 225          | °C                     | ISO 11357–1/–3  |
| Temp. of deflection under load (1.80 MPa)    | 210          | °C                     | ISO 75–1/–2     |
| Temp. of deflection under load (0.45 MPa)    | 220          | °C                     | ISO 75–1/–2     |
| Coeff. of linear therm. expansion (parallel) | 0.4          | E–4/°C                 | ISO 11359–1/–2  |
| Coeff. of linear therm. expansion (normal)   | 0.8          | E–4/°C                 | ISO 11359–1/–2  |
| Burning Behav. at 0.75 mm nom. thickn.       | V–2          | class                  | IEC 60695–11–10 |
| Thickness tested                             | 0.75         | mm                     | IEC 60695–11–10 |

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| PROPERTIES                            | TYPICAL DATA | UNIT  | TEST METHOD     |
|---------------------------------------|--------------|-------|-----------------|
| Burning Behav. at 1.5 mm nom. thickn. | V-0          | class | IEC 60695-11-10 |
| Thickness tested                      | 1.5          | mm    | IEC 60695-11-10 |
| Burning Behav. at 3.0 mm nom. thickn. | V-0          | class | IEC 60695-11-10 |
| Thickness tested                      | 3            | mm    | IEC 60695-11-10 |

| ELECTRICAL PROPERTIES            | VALUE |       |               |
|----------------------------------|-------|-------|---------------|
| Relative permittivity (100Hz)    | 3.2   | —     | IEC 62631-2-1 |
| Relative permittivity (1 MHz)    | 3.2   | —     | IEC 62631-2-1 |
| Dissipation factor (100 Hz)      | 10    | E-4   | IEC 62631-2-1 |
| Dissipation factor (1 MHz)       | 140   | E-4   | IEC 62631-2-1 |
| Volume resistivity               | >1E13 | Ohm*m | IEC 62631-3-1 |
| Comparative tracking index       | 225   | V     | IEC 60112     |
| Comparative tracking index (PLC) | 3     | class | UL 746A       |

| OTHER PROPERTIES    | VALUE |       |                |
|---------------------|-------|-------|----------------|
| Water absorption    | 0.4   | %     | Sim. to ISO 62 |
| Humidity absorption | 0.2   | %     | Sim. to ISO 62 |
| Density             | 1590  | kg/m³ | ISO 1183       |

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