

# FRIANYL<sup>®</sup> A3 H GF25 V0XI BK 9004/2 FRIANYL®

Designed for Electrical applications requiring self-extinguishing properties combined with excellent ignition resistance, this grade meets the most stringent safety requirements for insulating materials.

| Product information   |  |  |   |
|---|--|--|---|
| Resin Identification<br>Part Marking Code   | PA66-GF25-FR(<br>>PA66-GF25-FF   |  | ISO 1043<br>ISO 11469   |
| Rheological properties  |  |  |   |
| Moulding shrinkage range, parallel<br>Moulding shrinkage range, normal  | 0.2 - 0.5<br>0.5 - 0.7   |  | ISO 294-4, 2577<br>ISO 294-4, 2577  |
| Typical mechanical properties   | dry/cond.  |  |   |
| Tensile modulus<br>Tensile stress at break, 5mm/min<br>Tensile strain at break, 5mm/min<br>Flexural modulus<br>Charpy impact strength, 23°C<br>Izod notched impact strength, 23°C<br>Poisson's ratio<br>[C]: Calculated   | 10800/-<br>135/-<br>2/-<br>10500/-<br>45/-<br>8.5/-<br>0.34/- <sup>[C]</sup> | MPa<br>MPa<br>%<br>MPa<br>kJ/m <sup>2</sup><br>kJ/m <sup>2</sup> | ISO 527-1/-2<br>ISO 527-1/-2<br>ISO 527-1/-2<br>ISO 178<br>ISO 179/1eU<br>ISO 180/1A  |
| Thermal properties  | dry/cond.  |  |   |
| Melting temperature, 10°C/min<br>Temperature of deflection under load, 1.8 MPa  | 260/*<br>245/*   | °C<br>°C   | ISO 11357-1/-3<br>ISO 75-1/-2   |
| Flammability  | dry/cond.  |  |   |
| Burning Behav. at 1.5mm nom. thickn.<br>UL recognition<br>Burning Behav. at thickness h<br>Thickness tested<br>Glow Wire Flammability Index, 0.75mm<br>Glow Wire Flammability Index, 3.0mm<br>Glow Wire Ignition Temperature, 0.75mm<br>Glow Wire Ignition Temperature, 1.0mm<br>Glow Wire Ignition Temperature, 3.0mm<br>FMVSS Class | V-0/*<br>yes/*<br>V-0/*<br>0.8/*<br>960/-<br>925/-<br>925/-<br>925/-<br>SE   | class<br>mm<br>°C<br>°C<br>°C<br>°C<br>°C<br>°C                  | IEC 60695-11-10<br>UL 94<br>IEC 60695-11-10<br>IEC 60695-2-12<br>IEC 60695-2-12<br>IEC 60695-2-13<br>IEC 60695-2-13<br>IEC 60695-2-13<br>IEC 60695-2-13<br>IEC 60695-2-13 |
| Physical/Other properties   | dry/cond.  |  |   |
| Humidity absorption, 2mm<br>Water absorption, 2mm<br>Density  | 1/*<br>4/*<br>1610/-   | %<br>%<br>kg/m³  | Sim. to ISO 62<br>Sim. to ISO 62<br>ISO 1183  |





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### Injection

| Drying Recommended              | yes      |
|---------------------------------|----------|
| Drying Temperature              | 80 °C    |
| Drying Time, Dehumidified Dryer | 2-4 h    |
| Processing Moisture Content     | ≤0.1 %   |
| Melt Temperature Optimum        | 280 °C   |
| Min. melt temperature           | 265 °C   |
| Max. melt temperature           | 290 °C   |
| Screw tangential speed          | ≤0.2 m/s |
| Mold Temperature Optimum        | 80 °C    |
| Min. mould temperature          | 70 °C    |
| Max. mould temperature          | 90 °C    |

### Characteristics

| Processing              | Injection Moulding                                 |
|-------------------------|--|
| Delivery form           | Granules   |
| Additives               | Flame retardant                                    |
| Special characteristics | Flame retardant, Heat stabilised or stable to heat |

#### Printed: 2025-05-29

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#### Revised: 2024-08-16 Source: Celanese Materials Database

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