# TECHNYL® A 20H1 V25

Product Datasheet - June 2007

## Description

Flame retardant polyamide 66, reinforced with 25% of glass fibre, heat stabilised, for injection moulding.

## Product Applications

This phosphorus flame retardant grade, UL 94 V0 (0.8 mm, offers excellent filling qualities and with good mechanical properties. This grade is stabilised to offer a very low migration and corrosion of metallic contacts.

It is particularly suitable for moulding insulating parts for electrical devices:
- connectors,
- contactors,
- bobbins coil formers,
- thin parts under stress.

This product is available in black.

## Processing

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,2% with a dehumidified air drying equipment about 80°C.
Recommended moulding conditions:
Barrel temperatures:
- feed zone 270 - 275°C
- compression zone 275 - 280°C
- front zone 280 - 290°C

Mould temperatures: 60 at 80°C

For more detailed information, please refer to the technical sheet Injection moulding.

## Safety

Please refer to the Safety Data Sheet KAAFU41E8FS



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The values of properties are for black grade.

| Properties | Standards | Unit | Values | |
|---|---|---|---|---|
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| **Physical** | | | | |
| Water absorption (24 h at 23°C) | ISO 62 | % | 1 | - |
| Density | ISO 1183-A | g/cm3 | 1.38 | - |
| Molding shrinkage Parallel (1) (RHODIA-EP) | RHODIA-EP | % | 0.5 | - |
| Molding shrinkage normal or perpendicular (1) (Rhodia EP) | RHODIA-EP | % | 0.90 | - |
| Molding Shrinkage Isotropy | RHODIA-EP | | 0.55 | - |
| **Mechanical** | | | | |
| Tensile modulus | ISO 527 type 1 A | MPa | 9000 | 6000 |
| Elongation at break | ISO 527 type 1 A | % | 2 | 3.5 |
| Tensile strength at break | ISO 527 type 1 A | MPa | 135 | 100 |
| Flexural modulus | ISO 178 | MPa | 8000 | 5000 |
| Flexural maximum stress | ISO 178 | MPa | 200 | 125 |
| Charpy notched impact strength | ISO 179/1eA | kJ/m2 | 6 | 8 |
| Charpy unnotched impact strength | ISO 179/1eU | kJ/m2 | 40 | 45 |
| Izod notched impact strength | ISO 180/1A | kJ/m2 | 6 | 8 |
| **Flamability** | | | | |
| Flammability UL 94 (Thickness 0,8 mm) | ISO 1210/UL 94 | | V0 | - |
| Flammability UL 94 (Thickness 1,6 mm) | ISO 1210/UL 94 | | V0 | - |
| Flammability UL 94 (Thickness 3,2 mm) | ISO 1210/UL 94 | | V0 | - |
| Glow wire flammability index (thickness = 0,8) | IEC 60695-2-12 | °C | 960 | - |
| Glow wire flammability index (thickness = 1,6) | IEC 60695-2-12 | °C | 960 | - |
| Limit Oxygen index | ISO 4589 | | 27 | - |
| **Thermal** | | | | |
| Melting Temperature | ISO 11357 | °C | 263 | - |
| Heat deflection temperature, 1,8 Mpa | ISO 75/Af | °C | 250 | - |
| Coef. of Linear thermal expansion parallel (23°C to 85°C) | ISO 11359 | E-5 / °C | 3 | - |
| **Electrical** | | | | |
| Dissipation factor | IEC 60250 | | 0.02 | 0.10 |
| Volume resistivity | IEC 60093 | Ohm.cm | 10E14 | 10E12 |
| Surface resistivity | IEC 60093 | Ohm | 10E12 | 30E11 |
| Dielectric strength | IEC 60243 | kV/mm | 30 | 30 |
| Comparative tracking index sol. A | IEC 60112 | Volt | 450 | 375 |

**Identification Code : >PA66-GF25 FR(52)<**

The information contained in this document is supplied in good faith. It is based on the extent of our knowledge of the products as listed, and on the tests and experiments carried out in our laboratories. It is to be used only as an indication and shall not be construed in any way as a format commitment or warranty of our part. Compliance of our products with your conditions or use can only be determined pursuant to your own prior appropriate list. The listed values of properties are for natural grade, if not otherwise specified.

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