

# Nilamid A3 H G6 TF8 natural



PA66, 30% glass fibre reinforced, PTFE lubricated

|                 | Properties                                 | Conditions             | Unit              | Standard            | Values  |
|-----------------|--------------------------------------------|------------------------|-------------------|---------------------|---------|
| Physical        | Density                                    | 23°C                   | g/cm <sup>3</sup> | ISO 1183, ASTM D792 | 1,51    |
|                 | Mould shrinkage (parallel)                 | 23°C                   | %                 | Euronil             | 0,3     |
|                 | Mould shrinkage (normal)                   | 23°C                   | %                 | Euronil             | 0,7     |
|                 | Moisture absorption in water               | 23°C - 24h             | %                 | ISO 62 (based on)   | 0,4     |
|                 |                                            | 23°C saturation        | %                 | ISO 62 (based on)   | 4,0     |
| Mechanical      | Notched Izod Impact Strength               | 23°C                   | KJ/m <sup>2</sup> | ISO 180/1A          | 10      |
|                 |                                            | -30°C                  | KJ/m <sup>2</sup> | ISO 180/1A          | —       |
|                 | Unnotched Charpy Impact Strength           | 23°C                   | KJ/m <sup>2</sup> | ISO 179             | 90      |
|                 |                                            | -30°C                  | KJ/m <sup>2</sup> | ISO 179             | —       |
|                 | Notched Charpy Impact Strength             | 23°C                   | KJ/m <sup>2</sup> | ISO 179             | —       |
|                 |                                            | -30°C                  | KJ/m <sup>2</sup> | ISO 179             | —       |
|                 | Tensile yield stress                       | 23°C                   | MPa               | ISO 527, ASTM D638  | 125     |
|                 | Tensile modulus                            | 23°C                   | MPa               | ISO 527, ASTM D638  | —       |
|                 | Yield strain                               | 23°C                   | %                 | ISO 527, ASTM D638  | —       |
|                 | Strain at break                            | 23°C                   | %                 | ISO 527, ASTM D638  | 2,0     |
|                 | Flexural yield strength                    | 23°C                   | MPa               | ISO 178, ASTM D790  | 195     |
|                 |                                            | 90°C                   | MPa               | ISO 178, ASTM D790  | —       |
|                 | Flexural Modulus                           | 23°C                   | MPa               | ISO 178, ASTM D790  | 8000    |
|                 |                                            | 90°C                   | MPa               | ISO 178, ASTM D790  | —       |
| Thermal         | VICAT - softening temperature              | 9.8 N                  | °C                | ISO 306, ASTM D1525 | 262     |
|                 |                                            | 49 N                   | °C                | ISO 306, ASTM D1525 | 248     |
|                 | HDT - temperature of deflection under load | 0.45 N/mm <sup>2</sup> | °C                | ISO 75, ASTM D 648  | 262     |
|                 |                                            | 1.82 N/mm <sup>2</sup> | °C                | ISO 75, ASTM D 648  | 255     |
|                 | Heat resistance - Ball test                | 125°C                  |                   | IEC 309             | OK      |
|                 |                                            | 165°C                  |                   | IEC 309             | OK      |
| Electrical      | Continuous service temperature             | 20000 h                | °C                | IEC 216             | —       |
|                 | Dielectric Strength                        | 2 mm                   | KV/mm             | ASTM D149           | —       |
|                 | CTI - Comparative Tracking Index           | 3.2 mm, sol. A         | V                 | IEC 112, UL 746A    | 550     |
|                 |                                            | 3.2 mm, sol. B         | V                 | IEC 112, UL 746A    | 350M    |
| Flame behaviour | Oxygen Index                               |                        | %                 | ASTM D2863          | —       |
|                 | Flammability rating                        | 3.2 ( 1.6 ) mm         |                   | UL 94               | HB      |
|                 |                                            | 0.8 ( 0.4 ) mm         |                   | UL 94               | HB (HB) |
|                 | Needle test                                | 2.0 ( 1.0 ) mm         |                   | IEC 695-2-2         | —       |
|                 | Glow wire Flammability Index               | 3.2 ( 0.8 ) mm         | °C                | IEC 695-2-12        | —       |
|                 | Glow wire Ignition Temperature             | 3.2 ( 0.8 ) mm         | °C                | IEC 695-2-13        | —       |
|                 | Flammability rating                        | 355x100x1 mm           |                   | FMVSS No.302        | —       |

Technical Data Sheet

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