

# Nilamid B3 H G7 natural



PA6, 35% glass fibre reinforced

|                     | Properties                                 | Conditions      | Unit         | Standard            | Values    |
|---------------------|--------------------------------------------|-----------------|--------------|---------------------|-----------|
| Physical            | Density                                    | 23°C            | g/cm³        | ISO 1183, ASTM D792 | 1,41      |
|                     | Mould shrinkage (parallel)                 | 23°C            | %            | Euronil             | 0,3       |
|                     | Mould shrinkage (normal)                   | 23°C            | %            | Euronil             | 0,5       |
|                     | Moisture absorption in water               | 23°C - 24h      | %            | ISO 62 (based on)   | 1,0       |
|                     |                                            | 23°C saturation | %            | ISO 62 (based on)   | 6,0       |
| Mechanical          | Notched Izod Impact Strength               | 23°C            | KJ/m²        | ISO 180/1A          | 13        |
|                     |                                            | -30°C           | KJ/m²        | ISO 180/1A          | 10        |
|                     | Unnotched Charpy Impact Strength           | 23°C            | KJ/m²        | ISO 179             | 55        |
|                     |                                            | -30°C           | KJ/m²        | ISO 179             | 40        |
|                     | Notched Charpy Impact Strength             | 23°C            | KJ/m²        | ISO 179             | 13        |
|                     |                                            | -30°C           | KJ/m²        | ISO 179             | 10        |
|                     | Tensile yield stress                       | 23°C            | MPa          | ISO 527, ASTM D638  | 190       |
|                     | Tensile modulus                            | 23°C            | MPa          | ISO 527, ASTM D638  | 11000     |
|                     | Yield strain                               | 23°C            | %            | ISO 527, ASTM D638  | —         |
|                     | Strain at break                            | 23°C            | %            | ISO 527, ASTM D638  | 3,0       |
|                     | Flexural yield strength                    | 23°C            | MPa          | ISO 178, ASTM D790  | 250       |
|                     |                                            | 90°C            | MPa          | ISO 178, ASTM D790  | 150       |
|                     | Flexural Modulus                           | 23°C            | MPa          | ISO 178, ASTM D790  | 10000     |
|                     |                                            | 90°C            | MPa          | ISO 178, ASTM D790  | 6000      |
| Thermal             | VICAT - softening temperature              | 9.8 N           | °C           | ISO 306, ASTM D1525 | 222       |
|                     |                                            | 49 N            | °C           | ISO 306, ASTM D1525 | 218       |
|                     | HDT - temperature of deflection under load | 0.45 N/mm²      | °C           | ISO 75, ASTM D 648  | 221       |
|                     |                                            | 1.82 N/mm²      | °C           | ISO 75, ASTM D 648  | 212       |
|                     | Heat resistance - Ball test                | 125°C           |              | IEC 309             | OK        |
|                     |                                            | 165°C           |              | IEC 309             | OK        |
|                     | Continuous service temperature             | 20000 h         | °C           | IEC 216             | 105       |
| Electrical          | Dielectric Strength                        | 2 mm            | KV/mm        | ASTM D149           | 21        |
|                     | CTI - Comparative Tracking Index           | 3.2 mm, sol. A  | V            | IEC 112, UL 746A    | 500       |
|                     |                                            | 3.2 mm, sol. B  | V            | IEC 112, UL 746A    | 350M      |
| Flame behaviour     | Oxygen Index                               |                 | %            | ASTM D2863          | 23        |
|                     | Flammability rating                        | 3.2 ( 1.6 ) mm  |              | UL 94               | HB (HB)   |
|                     |                                            | 0.8 ( 0.4 ) mm  |              | UL 94               | 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        | 650 (650) |
|                     | 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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