

TECHNICAL DATA SHEET

Torgue PD30 GFR30 NC00

PA6 %30 GLASS FIBER NATURAL

injection moulding grade, cylindrical granuls

| Properties | Test method | Unit | Condition | Values |
|--------------------------------------|-------------|-------------------|---------------------------------|----------|
| ISO Shortname | ISO 16396 | - | - | PA6,GF30 |
| Density | ISO 1183 | g/cm ³ | | 1,36 |
| Viscosity Number (VN) | ISO 307 | ml/gr | %0,5(m/v) in %96 (m/m) H2SO4 | 135-155 |
| Ash Content | ISO 3451 | % | 750°C 30 min | 30 |
| Water absorption | ISO 62 | % | saturation in water 23 °C | 6,5 |
| Water absorption,(Equilibrium value) | ISO 62 | % | 50% RH, 23 °C | 2,1 |
| Mechanical properties | | | | |
| Tensile Modulus | ISO 527-2 | MPa | 23°C | 8.500 |
| Young Modulus | ISO 527-2 | MPa | 23°C | 9.500 |
| Tensile Strenght at Break | ISO 527-2 | MPa | 23°C | 170 |
| Tensile Strenght at Yield | ISO 527-2 | Mpa | 23°C | 125 |
| Elongation at Break | ISO 527-2 | % | 23°C | 3,5 |
| Elongation at Yield | ISO 527-2 | % | 23°C | 1,7 |
| Flexural modulus | ISO 178-A | Mpa | 23°C | 10.000 |
| Flexural Strength | ISO 178-A | Mpa | 23°C | 190 |
| Charpy notched impact strenght | ISO 179-1eA | kJ/m ² | 23°C | 15 |
| Charpy notched impact strenght | ISO 179-1eA | kJ/m ² | -30°C | 10 |
| Charpy unnotched | ISO 179-1eU | kJ/m ² | 23°C | 85 |
| Charpy unnotched impact strenght | ISO 179-1eU | kJ/m ² | -30°C | 75 |
| Izod notched impact impact strenght | ISO 180/1A | kJ/m ² | 23°C | 14 |
| Izod notched impact impact strenght | ISO 180/1A | kJ/m ² | -30°C | 9,50 |

| Thermal Properties | | | | |
|--|----------------|-------------------------|-----------------|-----------|
| Vicat softening temperature | ISO 306 | °C | 50 N - 50 °C/h | 215 |
| Deflection temperature 1.8 MPa (HDT A) | ISO 75-1-12 | °C | 1,80 Mpa | 200 |
| Deflection temperature 0.45 MPa (HDT B) | ISO 75-1-12 | °C | 0,45 Mpa | 215 |
| Flammability | | | | |
| Flame Rating | UL94 | class | 1,6 mm | HB |
| Flame Rating | UL94 | class | 0,75 mm | HB |
| GWFI (<i>Glow Wire Flammability Index</i>) | IEC 60695 | °C | 2 mm | 700 |
| GWIT (<i>Glow Wire Ignitability Index</i>) | IEC 60695 | °C | 2 mm | - |
| Electrical properties | | | | |
| Comparative tracking index, CTI | IEC 60112 | V | 3 mm-Solution A | 500 |
| Volume resistivity | IEC 60093 | ohm*m | dry | 1,00E+13 |
| Surface resistivity | IEC 60093 | ohm | dry | 1,00E+15 |
| Processing | | | | |
| Melting Temperature, DSC | ISO 11357-1/-3 | °C | - | 220 |
| MVR(Melt Volume Rate) | ISO 1133 | cm ³ /10 min | 265 °C/ 5 kg | 45-55 |
| Drying temperature dry air dryer | - | °C | - | 80 |
| Drying time dry air dryer | - | h | - | 4-6 |
| Residual moisture content | ISO 15512 | % | - | <0,2 |
| Melt Temperature, for processing | - | °C | - | 240-260 |
| Screw Design | - | - | - | universal |
| Mould Temperature, injection moulding | - | °C | - | 80 |
| Moulding shrinkage (parallel) | ISO 294-4 | % | 2 mm | 0,3 |
| Moulding shrinkage (normal) | ISO 294-4 | % | 2mm | 1,0 |

Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the coloring.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.