

TECHNICAL DATA SHEET

TECHNYL C 116 V30 BK

(Previously DOMAMID 6LVG30)

Polyamide 6, 30% glass fiber reinforced, improved flowability, for injection moulding

General

| | |
|-----------------------|----------------------|
| Feature | Improved flowability |
| Polymer type | PA6 (Polyamide 6) |
| Processing technology | Injection molding |
| Certification | RoHS |

Product identification

| | |
|-----------------------|---------------------|
| ISO 1043 abbreviation | PA6-GF30 |
| ISO 16396 designation | PA6,GF30,M1,S12-090 |

| | Condition | Standard | Unit | Value |
|-----------------------------|-----------|-----------------|--------------------|-----------|
| Physical properties | | | | |
| Density | | ISO 1183 | g/cm ³ | 1.36 |
| Molding shrinkage, parallel | | ISO 294-4, 2577 | % | 0.2 - 0.4 |
| Molding shrinkage, normal | | ISO 294-4, 2577 | % | 0.8 - 1 |
| Viscosity number | 96% H2SO4 | ISO 307 | cm ³ /g | 125 |

Mechanical properties

| | | | | dam / cond.* |
|---------------------------------------|----------|--------------|-------------------|--------------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 9300 / 5600 |
| Stress at break | 5 mm/min | ISO 527-1/-2 | MPa | 170 / 105 |
| Strain at break | 5 mm/min | ISO 527-1/-2 | % | 3.5 / 6.5 |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 8500 / - |
| Flexural strength, ISO 178 | 2 mm/min | ISO 178 | MPa | 260 / - |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m ² | 85 / 100 |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m ² | 13 / 22 |
| Izod impact strength, +23°C | +23°C | ISO 180/1U | kJ/m ² | 75 / 80 |
| Izod notched impact strength, +23°C | +23°C | ISO 180/1A | kJ/m ² | 13 / 22 |

| | Condition | Standard | Unit | Value |
|--|--------------|-------------|------|-------|
| Thermal properties | | | | |
| Melting temperature, 10°C/min | | ISO 11357-1 | °C | 221 |
| Temp. of deflection under load, 0.45 MPa | 0.45 MPa | ISO 75 | °C | 215 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75 | °C | 200 |
| Vicat softening temperature | 50°C/h - 50N | ISO 306 | °C | 210 |

Electrical properties

| | | | | |
|---------------------|--|---------------|-------|--------|
| Volume resistivity | | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity | | IEC 62631-3-1 | ohm | 1E+013 |

Burning behaviour

| | | | | |
|-------------------------------------|---------|-----------|--|--------------|
| Flammability, 0.75 mm | 0.75 mm | UL 94 | | HB |
| Burning rate, FMVSS, Thickness 1 mm | | FMVSS 302 | | < 100 mm/min |

*Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.
: conditioned according to ISO 1110

Processing conditions

| | | | | |
|-------------------------------|---|--|--|--|
| Drying temperature/time | 75-85°C / 2-4h (with dew point of dried air < -30 °C) | | | |
| Recommended melt temperature | 240 - 270 °C | | | |
| Recommended mould temperature | 90 - 100 °C | | | |

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.