

TECHNICAL DATA SHEET

TECHNYL C 216 S20 V10 NC

(Previously DOMAMID 6GB3010 NC)

Polyamide 6, 30% glass fiber and glass beads, for injection moulding

General

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

Product identification

| | |
|-----------------------|--------------------------|
| ISO 1043 abbreviation | PA6-(GF10+GB20) |
| ISO 16396 designation | PA6,(GF+GB)30,M1,S14-060 |

| Condition | Standard | Unit | Value |
|-----------|----------|------|-------|
|-----------|----------|------|-------|

Physical properties

| Condition | Standard | Unit | Value |
|-----------------------------|-----------------|-------------------|-----------|
| Density | ISO 1183 | g/cm ³ | 1.36 |
| Molding shrinkage, parallel | ISO 294-4, 2577 | % | 0.7 - 0.9 |
| Molding shrinkage, normal | ISO 294-4, 2577 | % | 0.9 - 1.1 |

Mechanical properties

| Condition | Standard | Unit | dam / cond.* | |
|---------------------------------------|----------|--------------|-------------------|----------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 6000 / - |
| Stress at break | 5 mm/min | ISO 527-1/-2 | MPa | 110 / - |
| Strain at break | 5 mm/min | ISO 527-1/-2 | % | 3 / - |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 5500 / - |
| Flexural strength, ISO 178 | 2 mm/min | ISO 178 | MPa | 170 / - |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m ² | 35 / - |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m ² | 4.5 / - |
| Izod impact strength, +23°C | +23°C | ISO 180/1U | kJ/m ² | 30 / - |
| Izod notched impact strength, +23°C | +23°C | ISO 180/1A | kJ/m ² | 4.5 / - |
| Rockwell hardness | | ISO 2039/2 | ScaleR | 122 / - |

| | 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 | 210 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75 | °C | 190 |
| Vicat softening temperature | 50°C/h - 50N | ISO 306 | °C | 200 |

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) |
| Rear temperature | 240 - 250 °C |
| Middle temperature | 245 - 255 °C |
| Front temperature | 250 - 260 °C |
| Recommended melt temperature | 240 - 260 °C |
| Recommended mould temperature | 80 - 90 °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.