

## TECHNICAL DATA SHEET

# TECHNYL C 216 S20 V10 BK

(Previously DOMAMID 6GB3010 300 BK)

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

### 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 <sup>3</sup> | 1.34                    |     |
| Humidity absorption                | T=23°C, 50% RH  | ISO 62            | %                       | 2.2 |
| Molding shrinkage, parallel        | ISO 294-4, 2577 | %                 | 0.6 - 0.8               |     |
| Molding shrinkage, normal          | ISO 294-4, 2577 | %                 | 1.1 - 1.3               |     |
| Melt volume-flow rate, MVR, 5.0 kg | 275°C, 5kg      | ISO 1133          | cm <sup>3</sup> /10 min | 55  |
| Viscosity number                   | 96% H2SO4       | ISO 307           | cm <sup>3</sup> /g      | 145 |

### Mechanical properties

dam / cond.\*

|                                       |           |              |                   |             |
|---------------------------------------|-----------|--------------|-------------------|-------------|
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa               | 5900 / 3500 |
| Stress at break                       | 50 mm/min | ISO 527-1/-2 | MPa               | 110 / 65    |
| Strain at break                       | 50 mm/min | ISO 527-1/-2 | %                 | 3.5 / 15    |
| Flexural modulus, ISO 178             | 2 mm/min  | ISO 178      | MPa               | 4800 / 2800 |
| Flexural strength, ISO 178            | 2 mm/min  | ISO 178      | MPa               | 170 / 80    |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 30 / 80     |
| Charpy impact strength, -30°C         | -30°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 30 / -      |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 4 / 12      |
| Charpy notched impact strength, -30°C | -30°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 3.5 / -     |

|  | Condition | Standard    | Unit | Value |
|--|-----------|-------------|------|-------|
| <b>Thermal properties</b>                |           |             |      |       |
| Melting temperature, 10°C/min            |           | ISO 11357-1 | °C   | 221   |
| Temp. of deflection under load, 0.45 MPa | 0.45 MPa  | ISO 75      | °C   | 200   |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa  | ISO 75      | °C   | 150   |

### Electrical properties

|                     |  |               |       |        |
|---------------------|--|---------------|-------|--------|
| Volume resistivity  |  | IEC 62631-3-1 | ohm.m | 1E+015 |
| Surface resistivity |  | IEC 62631-3-1 | ohm   | 1E+014 |

### Burning behaviour

|                                     |  |           |  |              |
|-------------------------------------|--|-----------|--|--------------|
| 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).  
\*: 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 - 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.

### Disclaimer

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