

TECHNICAL DATA SHEET

**TECHNYL SAFE C 216FC V30 NC**  
(Previously DOMAMID 6G30FC 300 NC)

TECHNYL SAFE C 216FC V30 NC is a polyamide 6, 30% glass fiber reinforced, food contact approved for injection moulding. Designed to be used in moulded parts requiring food contact compliance in industrial, consumer good as well as appliance applications.

**General**

|                       |   |  |
|-----------------------|---|--|
| Feature               | Food contact approved   |  |
| Polymer type          | PA6 (Polyamide 6)   |  |
| Processing technology | Injection molding   |  |
| Certification         | RoHS<br>EC 1907/2006 (REACH)                                  | UL-Yellow Card<br>WRAS BS6920-1: 2000 and 2014       |
| Applications          | Small appliance<br>Industrial Applications<br>large appliance | Consumer good application<br>building / construction |
| Colors available      | Natural   |  |
| Forms                 | Pellets   |  |

**Product identification**

|                       |                     |
|-----------------------|---------------------|
| ISO 1043 abbreviation | PA6-GF30            |
| ISO 16396 designation | PA6,GF30,M1,S14-090 |

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

**Physical properties**

|                                    | Condition      | Standard        | Unit                    | Value       |
|------------------------------------|----------------|-----------------|-------------------------|-------------|
| Density                            |                | ISO 1183        | g/cm <sup>3</sup>       | 1.36        |
| Humidity absorption                | T=23°C, 50% RH | ISO 62          | %                       | 2.1         |
| Molding shrinkage, parallel        |                | ISO 294-4, 2577 | %                       | 0.25 - 0.45 |
| Molding shrinkage, normal          |                | ISO 294-4, 2577 | %                       | 0.85 - 1.05 |
| Melt volume-flow rate, MVR, 5.0 kg | 275°C, 5kg     | ISO 1133        | cm <sup>3</sup> /10 min | 40          |
| Viscosity number                   | 96% H2SO4      | ISO 307         | cm <sup>3</sup> /g      | 145         |

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|                                       | Condition | Standard     | Unit              | Value               |
|---------------------------------------|-----------|--------------|-------------------|---------------------|
| <b>Mechanical properties</b>          |           |              |                   | <b>dam / cond.*</b> |
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa               | 9500 / 5300         |
| Stress at break                       | 5 mm/min  | ISO 527-1/-2 | MPa               | 170 / 110           |
| Strain at break                       | 5 mm/min  | ISO 527-1/-2 | %                 | 4 / 9               |
| Flexural modulus, ISO 178             | 2 mm/min  | ISO 178      | MPa               | 7200 / 4500         |
| Flexural strength, ISO 178            | 2 mm/min  | ISO 178      | MPa               | 270 / 150           |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 95 / 110            |
| Charpy impact strength, -30°C         | -30°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 75 / -              |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 14 / 25             |
| Charpy notched impact strength, -30°C | -30°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 11 / -              |


**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 | 220 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa     | ISO 75      | °C | 205 |
| Vicat softening temperature              | 50°C/h - 50N | ISO 306     | °C | 214 |

**Electrical properties**

|                                |            |               |       |        |
|--------------------------------|------------|---------------|-------|--------|
| Volume resistivity             |            | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity            |            | IEC 62631-3-1 | ohm   | 1E+014 |
| Comparative tracking index     | Solution A | IEC 60112     | V     | 500    |
| CTI performance level category |            | Sol A         |       | PLC 1  |

**Burning behaviour**

|   |  |           |  |              |
|---|--|-----------|--|--------------|
| UL Yellow Card availability  | Click here to have access to the UL Yellow Card → <a href="#">QMFZ2.E44716</a> |           |  |              |
| 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  | 250 - 290 °C  |
| Recommended mould temperature | 80 - 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.*

### Disclaimer

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