

**TECHNICAL DATA SHEET**

**TECHNYL SAFE C 216FC V15 NC**

(Previously DOMAMID 6G15FC 300 NC)

TECHNYL SAFE C 216FC V15 NC is a polyamide 6, 15% 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  | EC 1907/2006 (REACH)                                 |
| 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-GF15            |
| ISO 16396 designation | PA6,GF15,M1,S14-060 |

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

**Physical properties**

|                             |                                    |                 |                    |             |
|-----------------------------|------------------------------------|-----------------|--------------------|-------------|
| Density                     |                                    | ISO 1183        | g/cm <sup>3</sup>  | 1.24        |
| Humidity absorption         | T=23°C, 50% RH                     | ISO 62          | %                  | 2.6         |
| Molding shrinkage, parallel |                                    | ISO 294-4, 2577 | %                  | 0.35 - 0.55 |
| Molding shrinkage, normal   |                                    | ISO 294-4, 2577 | %                  | 0.85 - 1.05 |
| Viscosity number            | 96% H <sub>2</sub> SO <sub>4</sub> | ISO 307         | cm <sup>3</sup> /g | 145         |

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|                                       | Condition | Standard     | Unit              | Value<br>dam / cond.* |
|---------------------------------------|-----------|--------------|-------------------|-----------------------|
| <b>Mechanical properties</b>          |           |              |                   |                       |
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa               | 5600 / 3500           |
| Stress at break                       | 5 mm/min  | ISO 527-1/-2 | MPa               | 125 / 70              |
| Strain at break                       | 5 mm/min  | ISO 527-1/-2 | %                 | 3.7 / 6.5             |
| Flexural modulus, ISO 178             | 2 mm/min  | ISO 178      | MPa               | 4600 / 2400           |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 48 / 75               |
| Charpy impact strength, -30°C         | -30°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 40 / -                |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 6.5 / 16              |
| Charpy notched impact strength, -30°C | -30°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 5 / -                 |

**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 | 207 |
| 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 | 210 |

**Electrical properties**

|                     |  |               |       |        |
|---------------------|--|---------------|-------|--------|
| Volume resistivity  |  | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity |  | IEC 62631-3-1 | ohm   | 1E+014 |

**Burning behaviour**

|                       |         |       |  |    |
|-----------------------|---------|-------|--|----|
| Flammability, 0.75 mm | 0.75 mm | UL 94 |  | HB |
|-----------------------|---------|-------|--|----|

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.

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**Disclaimer**

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