

TECHNICAL DATA SHEET

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

TECHNYL SAFE C 216FC V30 BK 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                                       |
| Applications          | Small appliance<br>Industrial Applications<br>large appliance | Consumer good application<br>building / construction |
| Colors available      | Black                                                         |                                                      |
| Forms                 | Pellets                                                       |                                                      |

Product identification

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

|                                    | Condition      | Standard        | Unit       | Value       |
|------------------------------------|----------------|-----------------|------------|-------------|
| Physical properties                |                |                 |            |             |
| Density                            |                | ISO 1183        | g/cm³      | 1.36        |
| Humidity absorption                | T=23°C, 50% RH | ISO 62          | %          | 2 - 2.4     |
| Water absorption                   | 24 hr, 23°C    | ISO 62          | %          | 6.6         |
| Molding shrinkage, parallel        |                | ISO 294-4, 2577 | %          | 0.25 - 0.45 |
| Molding shrinkage, normal          |                | ISO 294-4, 2577 | %          | 0.9 - 1.1   |
| Melt volume-flow rate, MVR, 5.0 kg | 275°C, 5kg     | ISO 1133        | cm³/10 min | 45          |
| Viscosity number                   | 96% H2SO4      | ISO 307         | cm³/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   | 9400 / 5300         |
| Stress at break                       | 5 mm/min  | ISO 527-1/-2 | MPa   | 170 / 105           |
| Strain at break                       | 5 mm/min  | ISO 527-1/-2 | %     | 3 / 6               |
| Flexural modulus, ISO 178             | 2 mm/min  | ISO 178      | MPa   | 7400 / 4500         |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m² | 65 / 90             |
| Charpy impact strength, -30°C         | -30°C     | ISO 179/1eU  | kJ/m² | 60 / -              |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m² | 9 / 16              |
| Charpy notched impact strength, -30°C | -30°C     | ISO 179/1eA  | kJ/m² | 6 / -               |

**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 | 210 |
| 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 |

**Burning behaviour**

|                                                                                                                 |                                                                                     |           |  |              |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|--|--------------|
| UL Yellow Card availability  | Click here to have access to the UL Yellow Card → <a href="#">E329653-100458649</a> |           |  |              |
| 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).  
\*: 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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