

TECHNICAL DATA SHEET

TECHNYL SAFEC 216FC V40 NC

(Previously DOMAMID 6G40FC 300 NC)

TECHNYL SAFEC 216FC V40 NC is a polyamide 6, 40% glass fiber reinforced, food contact approved for injection moulding. Designed to be used in moulded part requiring good mechanical properties and food contact compliance in industrial consumer good as well as appliance applications.

General

| | | |
|-----------------------|---|-------------------------|
| Feature | Food contact approved Good strength | Good stiffness |
| Polymer type | PA6 (Polyamide 6) | |
| Processing technology | Injection molding | |
| Certification | RoHS | UL-Yellow Card |
| Applications | Consumer good application home appliance | Industrial Applications |
| Colors available | Natural | |
| Forms | Pellets | |

Product identification

| | |
|-----------------------|---------------------|
| ISO 1043 abbreviation | PA6-GF40 |
| ISO 16396 designation | PA6,GF40,M1,S14-120 |

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

Physical properties

| | | | | |
|------------------------------------|------------------------------------|----------|-------------------------|------|
| Density | | ISO 1183 | g/cm ³ | 1.45 |
| Melt volume-flow rate, MVR, 5.0 kg | 275°C, 5kg | ISO 1133 | cm ³ /10 min | 25 |
| Viscosity number | 96% H ₂ SO ₄ | ISO 307 | cm ³ /g | 145 |

Mechanical properties

dam / cond.*

| | | | | |
|---------------------------------------|----------|--------------|-------------------|-----------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 12000 / - |
| Stress at break | 5 mm/min | ISO 527-1/-2 | MPa | 200 / - |
| Strain at break | 5 mm/min | ISO 527-1/-2 | % | 3 / - |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 10000 / - |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m ² | 105 / - |
| Charpy impact strength, -30°C | -30°C | ISO 179/1eU | kJ/m ² | 80 / - |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m ² | 18 / - |
| Charpy notched impact strength, -30°C | -30°C | ISO 179/1eA | kJ/m ² | 13 / - |

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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+015 |

Burning behaviour

| | | | | |
|---|---|-----------|--|--------------|
| UL Yellow Card availability  | Click here to have access to the UL Yellow Card → E329653-100458649 | | | |
| Flammability, 1.5 mm | 1.5 mm | UL 94 | | HB |
| Flammability, 3.0 mm | 3.0 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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