

TECHNICAL DATA SHEET

TECHNYL C 246SI V40 NC

(Previously DOMAMID 6G40IK1 NC)

Polyamide 6, 40% glass fiber reinforced, low temperature impact modified, for injection moulding, natural color

General

| | |
|-----------------------|---------------------------------|
| Feature | Low temperature impact modified |
| Polymer type | PA6 (Polyamide 6) |
| Processing technology | Injection molding |
| Certification | RoHS |

Product identification

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

| | Condition | Standard | Unit | Value |
|-----------------------------|----------------|-----------------|--------------------|-----------|
| Physical properties | | | | |
| Density | | ISO 1183 | g/cm ³ | 1.43 |
| Humidity absorption | T=23°C, 50% RH | ISO 62 | % | 1.4 - 1.8 |
| Molding shrinkage, parallel | | ISO 294-4, 2577 | % | 0.4 - 0.6 |
| Molding shrinkage, normal | | ISO 294-4, 2577 | % | 0.9 - 1.1 |
| Viscosity number | 96% H2SO4 | ISO 307 | cm ³ /g | 145 |

Mechanical properties

| | | | | dam / cond.* |
|---------------------------------------|----------|--------------|-------------------|--------------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 12000 / 7000 |
| Stress at break | 5 mm/min | ISO 527-1/-2 | MPa | 180 / 125 |
| Strain at break | 5 mm/min | ISO 527-1/-2 | % | 5 / 9.5 |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 10000 / 6500 |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m ² | 110 / 125 |
| Charpy impact strength, -30°C | -30°C | ISO 179/1eU | kJ/m ² | 105 / 100 |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m ² | 28 / 35 |
| Charpy notched impact strength, -30°C | -30°C | ISO 179/1eA | kJ/m ² | 17 / 17 |

| | Condition | Standard | Unit | Value |
|--|-----------|-------------|------|-------|
| 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 | 216 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75 | °C | 200 |

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 | 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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