

TECHNICAL DATA SHEET

TECHNYL C 248SI V20 BK 21N

Polyamide 6, 20% glass fiber reinforced, heat-aging stabilized, low temperature impact modified, for injection molding, black

General

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

Product identification

| | |
|-----------------------|------------------------|
| ISO 1043 abbreviation | PA6-I-GF20 |
| ISO 16396 designation | PA6-I,GF20,M1H,S14-060 |

Condition

Standard

Unit

Value

Physical properties

| | Condition | Standard | Unit | Value |
|-----------------------------|-----------|-----------------|-------------------|-----------|
| Density | | ISO 1183 | g/cm ³ | 1.22 |
| Molding shrinkage, parallel | | ISO 294-4, 2577 | % | 0.2 - 0.4 |
| Molding shrinkage, normal | | ISO 294-4, 2577 | % | 0.7 - 0.9 |

Mechanical properties

dam / cond.*

| | Condition | Standard | Unit | Value |
|---------------------------------------|-----------|--------------|-------------------|-------------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 6000 / 3000 |
| Stress at break | 5 mm/min | ISO 527-1/-2 | MPa | 105 / 65 |
| Strain at break | 5 mm/min | ISO 527-1/-2 | % | 4.5 / 12 |
| Yield stress | 5 mm/min | ISO 527-1/-2 | MPa | 110 / 70 |
| Yield strain | 5 mm/min | ISO 527-1/-2 | % | 3.5 / 9 |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 5000 / 2500 |
| Flexural strength, ISO 178 | 2 mm/min | ISO 178 | MPa | 180 / 95 |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | kJ/m ² | 75 / 100 |
| Charpy impact strength, -30°C | -30°C | ISO 179/1eU | kJ/m ² | 85 / 85 |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m ² | 22 / 35 |
| Charpy notched impact strength, -30°C | -30°C | ISO 179/1eA | kJ/m ² | 13 / 13 |

| | Condition | Standard | Unit | Value |
|-------------------------------------|-----------|-------------|------|-------|
| Thermal properties | | | | |
| Melting temperature, 10°C/min | | ISO 11357-1 | °C | 221 |
| Burning behaviour | | | | |
| Burning rate, FMVSS, Thickness 1 mm | | FMVSS 302 | | < 100 |

*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 |

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