

TECHNICAL DATA SHEET

TECHNYL C 230 NC

TECHNYL C 230 NC is an unreinforced polyamide 6, with improved impact resistance, for injection moulding. This grade offers improved impact strength and higher flexibility. The grade is designed to make technical parts having small or medium size. This product is available in natural color.

General

| | | | |
|-----------------------|-------------------|----------------------|--|
| Feature | Impact resistant | | |
| Polymer type | PA6 (Polyamide 6) | | |
| Processing technology | Injection molding | | |
| Certification | RoHS | EC 1907/2006 (REACH) | |
| Colors available | Natural | | |
| Forms | Pellets | | |

Product identification

| | |
|-----------------------|-----|
| ISO 1043 abbreviation | PA6 |
|-----------------------|-----|

Physical properties

| | Condition | Standard | Unit | Value |
|------------------------------|-------------|-----------------|-------------------|-------|
| Density | | ISO 1183 | g/cm ³ | 1.14 |
| Water absorption | 24 hr, 23°C | ISO 62 | % | 1.2 |
| Water absorption, saturation | | | % | 9 |
| Molding shrinkage, parallel | | ISO 294-4, 2577 | % | 1.2 |
| Molding shrinkage, normal | | ISO 294-4, 2577 | % | 1.5 |

Mechanical properties

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|---------------------------------------|----------|--------------|-------------------|--------------|
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 2600 / 720 |
| Stress at break | | ISO 527-1/-2 | MPa | 45 / 35 |
| Strain at break | | ISO 527-1/-2 | % | 50 / 200 |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 2500 / 800 |
| Flexural strength, ISO 178 | 2 mm/min | ISO 178 | MPa | 100 / 35 |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m ² | 11 / 90 |
| Izod notched impact strength, +23°C | +23°C | ISO 180/1A | kJ/m ² | 9 / 80 |

| | Condition | Standard | Unit | Value |
|--|-----------|-------------|------|-------|
| Thermal properties | | | | |
| Melting temperature, 10°C/min | | ISO 11357-1 | °C | 222 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75 | °C | 75 |

Electrical properties

| | | | | |
|--------------------------------|------------|---------------|-------|--------|
| Volume resistivity | | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity | | IEC 62631-3-1 | ohm | 1E+014 |
| Comparative tracking index | Solution A | IEC 60112 | V | 600 |
| CTI performance level category | | Sol A | | PLC 0 |

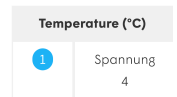
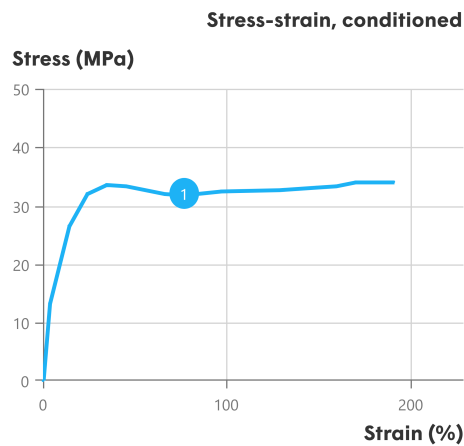
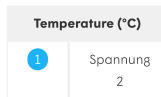
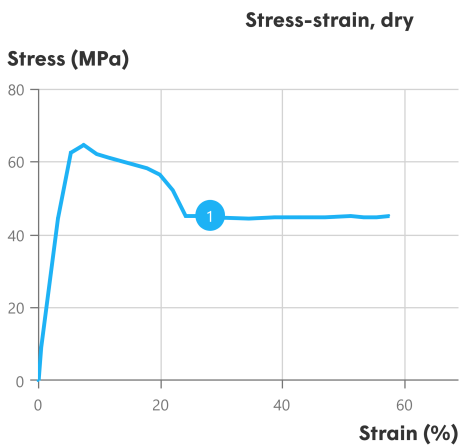
Burning behaviour

| | | | | |
|----------------------|--------|-------|--|----|
| Flammability, 1.5 mm | 1.5 mm | UL 94 | | HB |
|----------------------|--------|-------|--|----|

*: conditioned according to ISO 1110

Processing conditions

| | |
|-------------------------------|--------------|
| Drying temperature/time | 80 °C |
| Suggested max moisture | 0.2 % |
| Rear temperature | 230 - 235 °C |
| Middle temperature | 235 - 240 °C |
| Front temperature | 235 - 245 °C |
| Recommended mould temperature | 60 - 80 °C |



Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Injection advice

For unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

Disclaimer

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