TECHNYL®

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TECHNICAL DATA SHEET

# TECHNYL C 202 NC

**(Previously DOMAMID 6 NC01)**

Polyamide 6, for injection moulding, natural color

## General

| | | |
|---|---|---|
| Feature | UL V2 | |
| Polymer type | PA6 (Polyamide 6) | |
| Processing technology | Injection molding | |
| Certification | RoHS | UL-Yellow Card |

## Product identification

| | |
|---|---|
| ISO 1043 abbreviation | PA6 |
| ISO 16396 designation | PA6,M1,S14-030 |

## Physical properties

| | Condition | Standard | Unit | Value |
|---|---|---|---|---|
| Density | | ISO 1183 | g/cm³ | 1.14 |
| Water absorption | 24 hr, 23°C | ISO 62 | % | 10 |
| Molding shrinkage, parallel | 72 hr, 23°C, 50% RH | ISO 294-4, 2577 | % | 0.9 - 1.1 |
| Molding shrinkage, normal | 72 hr, 23°C, 50% RH | ISO 294-4, 2577 | % | 1 - 1.2 |
| Melt volume-flow rate, MVR, 5.0 kg | 275°C, 5kg | ISO 1133 | cm³/10 min | 165 |
| Viscosity number | 96% H2SO4 | ISO 307 | cm³/g | 145 |

| | Condition | Standard | Unit | Value |
|---|---|---|---|---|
| **Mechanical properties** | | | | **dam / cond.*** |
| Tensile modulus | 1 mm/min | ISO 527-1/-2 | MPa | 3200 / 1000 |
| Strain at break | 50 mm/min | ISO 527-1/-2 | % | 20 / 50 |
| Yield stress | 50 mm/min | ISO 527-1/-2 | MPa | 80 / 40 |
| Yield strain | 50 mm/min | ISO 527-1/-2 | % | 4 / 20 |
| Flexural modulus, ISO 178 | 2 mm/min | ISO 178 | MPa | 2800 / 900 |
| Flexural strength, ISO 178 | 2 mm/min | ISO 178 | MPa | 105 / 35 |
| Charpy impact strength, +23°C | +23°C | ISO 179/1eU | | NB / NB |
| Charpy impact strength, -30°C | -30°C | ISO 179/1eU | kJ/m² | 150 / NB |
| Charpy notched impact strength, +23°C | +23°C | ISO 179/1eA | kJ/m² | 4.5 / 20 |
| Izod impact strength, +23°C | +23°C | ISO 180/1U | | NB / NB |
| Izod notched impact strength, +23°C | +23°C | ISO 180/1A | kJ/m² | 4.5 / 19 |
| Rockwell hardness | | ISO 2039/2 | ScaleR | 120 / - |
| **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 | 175 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75 | °C | 65 |
| Vicat softening temperature | 50°C/h - 50N | ISO 306 | °C | 200 |
| **Electrical properties** | | | | |
| Volume resistivity | | IEC 62631-3-1 | ohm.m | 1E+016 |
| Surface resistivity | | IEC 62631-3-1 | ohm | 1E+014 |
| Comparative tracking index | Solution A | IEC 60112 | V | 600 |
| **Burning behaviour** | | | | |
| UL Yellow Card availability | Click here to have access to the UL Yellow Card → E170540-225449 | | | |
| Flammability, 0.75 mm | 0.75 mm | UL 94 | | V2 |
| Glow-wire flammability index, GWFI, 3.0 mm | 3.0 mm | IEC 60695-2-12 | °C | 850 |
| Glow-wire flammability index, GWFI | 1.0 mm | IEC 60695-2-12 | °C | 750 |
| 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 | 230 - 250 °C |
| Recommended mould temperature | 60 - 90 °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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