

TECHNICAL DATA SHEET

TECHNYL C 236 V30 NC  
(Previously DOMAMID 6G30 500 NC)

Polyamide 6, 30% glass fiber reinforced, improved impact resistance, for injection moulding

General

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

Product identification

|                       |                       |
|-----------------------|-----------------------|
| ISO 1043 abbreviation | PA6-I-GF30            |
| ISO 16396 designation | PA6-I,GF30,M1,S14-090 |

|                                    |            | Condition | Standard        | Unit                    | Value     |
|------------------------------------|------------|-----------|-----------------|-------------------------|-----------|
| Physical properties                |            |           |                 |                         |           |
| Density                            |            |           | ISO 1183        | g/cm <sup>3</sup>       | 1.34      |
| Molding shrinkage, parallel        |            |           | ISO 294-4, 2577 | %                       | 0.3 - 0.5 |
| Molding shrinkage, normal          |            |           | ISO 294-4, 2577 | %                       | 0.9 - 1.1 |
| Melt volume-flow rate, MVR, 5.0 kg | 275°C, 5kg |           | ISO 1133        | cm <sup>3</sup> /10 min | 35        |
| Viscosity number                   | 96% H2SO4  |           | ISO 307         | cm <sup>3</sup> /g      | 145       |

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|                                       | Condition | Standard     | Unit  | Value        |
|---------------------------------------|-----------|--------------|-------|--------------|
| Mechanical properties                 |           |              |       | dam / cond.* |
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa   | 9200 / 5000  |
| Stress at break                       | 5 mm/min  | ISO 527-1/-2 | MPa   | 170 / 90     |
| Strain at break                       | 5 mm/min  | ISO 527-1/-2 | %     | 3.5 / 8.2    |
| Flexural modulus, ISO 178             | 2 mm/min  | ISO 178      | MPa   | 8000 / 4900  |
| Flexural strength, ISO 178            | 2 mm/min  | ISO 178      | MPa   | 265 / 220    |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m² | 90 / 110     |
| Charpy impact strength, -30°C         | -30°C     | ISO 179/1eU  | kJ/m² | 78 / -       |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m² | 18 / 30      |
| Charpy notched impact strength, -30°C | -30°C     | ISO 179/1eA  | kJ/m² | 14 / -       |
| Izod impact strength, +23°C           | +23°C     | ISO 180/1U   | kJ/m² | 80 / 100     |
| Izod notched impact strength, +23°C   | +23°C     | ISO 180/1A   | kJ/m² | 17 / 30      |

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 | 215 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa     | ISO 75      | °C | 200 |
| Vicat softening temperature              | 50°C/h - 50N | ISO 306     | °C | 210 |

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     | 500    |
| CTI performance level category |            | Sol A         |       | PLC 1  |

Burning behaviour

|                                     |         |           |  |              |
|-------------------------------------|---------|-----------|--|--------------|
| Flammability, 0.75 mm               | 0.75 mm | UL 94     |  | HB           |
| 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), valid for natural colored products.  
\*: conditioned according to ISO 1110

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Processing conditions

|                               |                                                       |
|-------------------------------|-------------------------------------------------------|
| Drying temperature/time       | 75-85°C / 2-4h (with dew point of dried air < -30 °C) |
| Suggested max moisture        | 0.2 %                                                 |
| Recommended melt temperature  | 240 - 270 °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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