

TECHNICAL DATA SHEET

TECHNYL C 116S BK 21N  
(Previously DOMAMID 6LV 302 BK999)

Polyamide 6, improved flowability, for injection moulding, black

General

|                       |                      |                |  |
|-----------------------|----------------------|----------------|--|
| Feature               | Improved flowability |                |  |
| 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,S12-030 |  |  |

|                                     | Condition      | Standard | Unit                    | Value |
|-------------------------------------|----------------|----------|-------------------------|-------|
| Physical properties                 |                |          |                         |       |
| Density                             |                | ISO 1183 | g/cm <sup>3</sup>       | 1.12  |
| Melt volume-flow rate, MVR, 5.0 kg  | 275°C, 5kg     | ISO 1133 | cm <sup>3</sup> /10 min | 190   |
| Melt volume-flow rate, MVR, 2.16 kg | 275°C, 2,16 kg | ISO 1133 | cm <sup>3</sup> /10 min | 130   |
| Viscosity number                    | 96% H2SO4      | ISO 307  | cm <sup>3</sup> /g      | 130   |

|                                       |           |              |                   |              |
|---------------------------------------|-----------|--------------|-------------------|--------------|
| Mechanical properties                 |           |              |                   | dam / cond.* |
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa               | 3000 / -     |
| Stress at break                       | 50 mm/min | ISO 527-1/-2 | MPa               | 40 / -       |
| Strain at break                       | 50 mm/min | ISO 527-1/-2 | %                 | 5 / -        |
| Yield stress                          | 50 mm/min | ISO 527-1/-2 | MPa               | 84 / -       |
| Yield strain                          | 50 mm/min | ISO 527-1/-2 | %                 | 3.6 / -      |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | NB / -       |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 4 / -        |

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|                                          | 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   | 155   |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa     | ISO 75      | °C   | 63    |
| Vicat softening temperature              | 50°C/h - 50N | ISO 306     | °C   | 202   |

Electrical properties

|                     |  |               |       |        |
|---------------------|--|---------------|-------|--------|
| Volume resistivity  |  | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity |  | IEC 62631-3-1 | ohm   | 1E+014 |

Burning behaviour

|                                                                                                               |                                                                                     |       |  |    |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|--|----|
| UL Yellow Card availability  | Click here to have access to the UL Yellow Card → <a href="#">E170540-100053880</a> |       |  |    |
| Flammability, 0.75 mm                                                                                         | 0.75 mm                                                                             | UL 94 |  | V2 |
| Flammability, 1.5 mm                                                                                          | 1.5 mm                                                                              | UL 94 |  | V2 |
| Flammability, 3.0 mm                                                                                          | 3.0 mm                                                                              | UL 94 |  | V2 |

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  | 240 - 280 °C                                          |
| Recommended mould temperature | 60 - 80 °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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