

TECHNICAL DATA SHEET

TECHNYL A 239 V35 BK  
(Previously DOMAMID 66G35H1 500 BK)

Polyamide 66, 35% glass fiber reinforced, heat-aging stabilized, improved impact resistance, for injection moulding

General

|                       |                                     |                       |
|-----------------------|-------------------------------------|-----------------------|
| Feature               | UL HB<br>Improved impact resistance | Heat-aging stabilized |
| Polymer type          | PA66 (Polyamide 66)                 |                       |
| Processing technology | Injection molding                   |                       |
| Certification         | RoHS                                | UL-Yellow Card        |

Product identification

|                       |                         |
|-----------------------|-------------------------|
| ISO 1043 abbreviation | PA66-I-GF35             |
| ISO 16396 designation | PA66-I,GF35,M1H,S14-100 |

| Condition | Standard | Unit | Value |
|-----------|----------|------|-------|
|-----------|----------|------|-------|

Physical properties

|         |  |          |       |      |
|---------|--|----------|-------|------|
| Density |  | ISO 1183 | g/cm³ | 1.38 |
|---------|--|----------|-------|------|

Mechanical properties

|                                       |          |              |       | dam / cond.* |
|---------------------------------------|----------|--------------|-------|--------------|
| Tensile modulus                       | 1 mm/min | ISO 527-1/-2 | MPa   | 9700 / 8000  |
| Stress at break                       | 5 mm/min | ISO 527-1/-2 | MPa   | 175 / 135    |
| Strain at break                       | 5 mm/min | ISO 527-1/-2 | %     | 3 / 5        |
| Flexural modulus, ISO 178             | 2 mm/min | ISO 178      | MPa   | 8500 / 7000  |
| Flexural strength, ISO 178            | 2 mm/min | ISO 178      | MPa   | 260 / 205    |
| Charpy impact strength, +23°C         | +23°C    | ISO 179/1eU  | kJ/m² | 80 / 95      |
| Charpy notched impact strength, +23°C | +23°C    | ISO 179/1eA  | kJ/m² | 14 / 20      |
| Izod impact strength, +23°C           | +23°C    | ISO 180/1U   | kJ/m² | 75 / 90      |
| Izod notched impact strength, +23°C   | +23°C    | ISO 180/1A   | kJ/m² | 13 / 18      |

Thermal properties

|                                          |              |             |    |     |
|------------------------------------------|--------------|-------------|----|-----|
| Melting temperature, 10°C/min            |              | ISO 11357-1 | °C | 262 |
| Temp. of deflection under load, 0.45 MPa | 0.45 MPa     | ISO 75      | °C | 255 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa     | ISO 75      | °C | 250 |
| Vicat softening temperature              | 50°C/h - 50N | ISO 306     | °C | 250 |

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Electrical properties

|                                |            |               |       |        |
|--------------------------------|------------|---------------|-------|--------|
| Volume resistivity             |            | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity            |            | IEC 62631-3-1 | ohm   | 1E+013 |
| Comparative tracking index     | Solution A | IEC 60112     | V     | 500    |
| CTI performance level category |            | Sol A         |       | PLC 1  |

Burning behaviour

|                                                                                                               |                                                                                  |           |  |              |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------|--|--------------|
| UL Yellow Card availability  | Click here to have access to the UL Yellow Card → <a href="#">E170540-225461</a> |           |  |              |
| 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

Processing conditions

|                               |                                                       |
|-------------------------------|-------------------------------------------------------|
| Drying temperature/time       | 75-85°C / 2-4h (with dew point of dried air < -30 °C) |
| Recommended melt temperature  | 270 - 290 °C                                          |
| Recommended mould temperature | 90 - 110 °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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