

**TECHNICAL DATA SHEET**
**TECHNYL MAX A 219 XV50 BK**

(Previously DOMAMID XS 66V50H1 BK)

Polyamide 66, 50% flat glass fiber reinforced, heat-aging stabilized, for injection moulding

**General**

|                       |                       |                      |
|-----------------------|-----------------------|----------------------|
| Feature               | Heat-aging stabilized |                      |
| Polymer type          | PA66 (Polyamide 66)   |                      |
| Processing technology | Injection molding     |                      |
| Certification         | RoHS                  | EC 1907/2006 (REACH) |
| Colors available      | Black                 | Grey                 |
| Forms                 | Pellets               |                      |

**Product identification**

|                       |                       |
|-----------------------|-----------------------|
| ISO 1043 abbreviation | PA66-GF50             |
| ISO 16396 designation | PA66,GF50,M1H,S14-190 |

**Condition**
**Standard**
**Unit**
**Value**
**Physical properties**

|                     |                |          |                   |      |
|---------------------|----------------|----------|-------------------|------|
| Density             |                | ISO 1183 | g/cm <sup>3</sup> | 1.59 |
| Humidity absorption | T=23°C, 50% RH | ISO 62   | %                 | 1.4  |
| Water absorption    | 24 hr, 23°C    | ISO 62   | %                 | 4    |

**Mechanical properties**
**dam / cond.\***

|                                       |          |              |                   |           |
|---------------------------------------|----------|--------------|-------------------|-----------|
| Tensile modulus                       | 1 mm/min | ISO 527-1/-2 | MPa               | 17500 / - |
| Stress at break                       | 5 mm/min | ISO 527-1/-2 | MPa               | 240 / -   |
| Strain at break                       | 5 mm/min | ISO 527-1/-2 | %                 | 3 / -     |
| Flexural modulus, ISO 178             | 2 mm/min | ISO 178      | MPa               | 15500 / - |
| Flexural strength, ISO 178            | 2 mm/min | ISO 178      | MPa               | 350 / -   |
| Charpy impact strength, +23°C         | +23°C    | ISO 179/1eU  | kJ/m <sup>2</sup> | 75 / -    |
| Charpy notched impact strength, +23°C | +23°C    | ISO 179/1eA  | kJ/m <sup>2</sup> | 15 / -    |

**Thermal properties**

|                                          |          |             |    |     |
|------------------------------------------|----------|-------------|----|-----|
| Melting temperature, 10°C/min            |          | ISO 11357-1 | °C | 262 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa | ISO 75      | °C | 245 |

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|--|-----------|----------|------|-------|
|--|-----------|----------|------|-------|

**Electrical properties**

|                    |  |               |       |             |
|--------------------|--|---------------|-------|-------------|
| Volume resistivity |  | IEC 62631-3-1 | ohm.m | 10000000000 |
|--------------------|--|---------------|-------|-------------|

**Burning behaviour**

|                                     |         |           |  |      |
|-------------------------------------|---------|-----------|--|------|
| Flammability, 0.75 mm               | 0.75 mm | UL 94     |  | HB   |
| Burning rate, FMVSS, Thickness 1 mm |         | FMVSS 302 |  | <100 |

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  | 280 - 305 °C                                          |
| Recommended mould temperature | 70 - 100 °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.

**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.