

Preliminary Technical Data Sheet



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|-------------------------|---|-----------------------|
| Product: | PENTAMID A CV10 H black | |
| Description: | Normal viscosity, heat stabilised polyamide 66, 10% carbon fiber reinforced | Product-No.: 6699.001 |
| DIN EN ISO designation: | PA66, MHRC, 14-90 N, CF10 | |

| Properties | Standard | Unit | d.a.m. | cond. |
|------------|----------|------|--------|-------|
|------------|----------|------|--------|-------|

General Properties

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|------------------------------------|-----------|-------------------|------|--|
| Density | ISO 1183 | g/cm ³ | 1,18 | |
| Viscosity Number | ISO 307 | ml/g | 140 | |
| Water absorption (saturation) | ISO 62 | % | 7,8 | |
| Humidity absorption (23°C/50%r.h.) | ISO 62 | % | 2,6 | |
| Molding shrinkage parallel. | ISO 294-4 | % | 0,35 | |
| Molding shrinkage normal | ISO 294-4 | % | 0,5 | |

Mechanical Properties

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|--|----------------------|-------------------|------|--|
| Tensile E-Modulus | ISO 527-2 (1 mm/min) | MPa | 9900 | |
| Stress at break | ISO 527-2 (5 mm/min) | MPa | 145 | |
| Strain at break | ISO 527-2 (5 mm/min) | % | 1,8 | |
| Flexural modulus | ISO 178 | MPa | | |
| Flexural strength at break | ISO 178 | MPa | | |
| Impact strength (Charpy @ +23°C) | ISO 179/1eU | kJ/m ² | 34 | |
| Impact strength (Charpy @ -30°C) | ISO 179/1eU | kJ/m ² | | |
| Notched Impact strength (Charpy @ +23°C) | ISO 179/1eA | kJ/m ² | 4 | |
| Notched Impact strength (Charpy @ -30°C) | ISO 179/1eA | kJ/m ² | | |

Thermal Properties

| | | | | |
|-----------------------------------|-------------------|--------|-----|--|
| Melting point (DSC) | ISO 11357 | °C | 260 | |
| Heat deflection temperature HDT/A | ISO 75 (1,80 MPa) | °C | 240 | |
| Heat deflection temperature HDT/B | ISO 75 (0,45 MPa) | °C | 255 | |
| Flammability class (UL 94) | ISO 1210 (1,6 mm) | rating | HB | |
| Flammability class (UL 94) | ISO 1210 (3,2 mm) | rating | HB | |

Electrical Properties

| | | | | |
|-------------------------------|-----------------|-------|--|--|
| Dielectric coefficient @ 1MHz | IEC 60250 | -- | | |
| Dielectric strength | IEC 60243-1 | kV/mm | | |
| Comparative tracking index | IEC 60112 (CTI) | -- | | |

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