



Alumide® / Nylon 12 (PA 12) filled with aluminium

Alternative Designations

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Key Features

High rigidity • High dimensional accuracy • High thermal conductivity • Machinability

Description

It is a metallic grey polyamide powder filled with aluminium. This combination makes the material strong and durable, while still being lightweight. Nylon 12 is often used in 3D printing applications because it can create strong, detailed parts. When filled with aluminium, the material is also conductive, making it ideal for creating electrical components or printed circuit boards.

Mechanical Properties

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|---------------------|----------|
| Tensile modulus | 3800 MPa |
| Tensile strength | 48 MPa |
| Elongation at break | 4% |
| Hardness (Shore D) | 76 |

Thermal Properties

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|--|-------|
| Melting temperature (20°C/min) | 176°C |
| Heat deflection temperature (1.80 MPa) | 144°C |
| Heat deflection temperature (1.80 MPa) | 175°C |

Physical Properties

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|---------|-------------------------|
| Density | 1.360 g/cm ³ |
|---------|-------------------------|

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.