

EOS Alumide

Selective Laser Sintering | ALUMIDE | powder

Compiled by FabDigit from manufacturer technical data. Values below belong to this named product; unreported properties are omitted.

Manufacturer: EOS

Source revision: Status 2026-05-28

Recorded system family: EOS FORMIGA P 110 / P 396 / P 500 / P 770

As-printed colour: Metallic. Aluminium-filled PA12, metallic gray; 50 wt% aluminium

Test values are typical reported results, not guaranteed design allowables or finished-part certification. Review the complete source for specimen preparation, orientation and conditioning.

Mechanical

PROPERTY	VALUE	TEST / CONDITION
Elastic (Young's) Modulus	3.8 GPa	per ISO 527-1/-2; X 3.8 / Y 3.8 GPa
Tensile Strength (Ultimate)	48 MPa	per ISO 527-1/-2; X 48 / Y 48
Elongation at Break	4 %	per ISO 527-1/-2
Flexural Modulus	3.6 GPa	per ISO 178
Flexural Strength	72 MPa	per ISO 178
Charpy Impact, Unnotched (ISO 179)	29 kJ/m2	per ISO 179/1eU
Charpy Impact, Notched (ISO 179)	4.6 kJ/m2	per ISO 179/1eA
Hardness, Shore D	76 Shore D	per ISO 7619-1

Physical

PROPERTY	VALUE	TEST / CONDITION
Melting Temperature (T _m)	176 deg C	per ISO 11357-1/-3
Density	1.36 g/cm3	per EOS Method

Thermal

PROPERTY	VALUE	TEST / CONDITION
Heat Deflection Temp. @ 1.8 MPa	144 deg C	per ISO 75-1/-2
Heat Deflection Temp. @ 0.45 MPa	175 deg C	per ISO 75-1/-2
Vicat Softening Point (B50)	169 deg C	per ISO 306/B50

Electrical

PROPERTY	VALUE	TEST / CONDITION
Dielectric Strength	0.1 kV/mm	per IEC 60243-1
Surface Resistivity	500,000,000,000,000 ohm	per IEC 62631-3-2

Selection and finishing

Aluminium-filled PA12 for rigid parts where the metallic gray appearance and higher stiffness are useful.

Design: Avoid thin, notch-sensitive features and validate any electrical, grounding or thermal requirement; filler does not make a part a reliable conductor or metal heat sink.

Finishing: The metallic gray is as printed. Blasting and clear coating may improve appearance, but confirm coating adhesion and any dimensional effect on a sample.

Source and document scope

EOS manufacturer source reference - Status 2026-05-28

<https://www.eos.info/polymer-solutions/polymer-materials/data-sheets/mds-alumide>

FabDigit product page: <https://www.fabdigit.com/materials/polymer-pa12/eos-alumide/>

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