

► A1000-AM (high thermal conductivity)

Product Information

Elementum 3D's pure aluminum product is an excellent solution for thermal management systems that require high thermal conductivity while meeting strict weight and strength restrictions. An additive printed pure aluminum is a novel solution for spacecraft construction and electronic packaging applications.

Physical and Chemical Properties

Material composition: Aluminum 1000

Density: 2.7g/cc

Relative density: > 99.5%

Ultimate tensile strength: *15-16 ksi (100-110 MPa)

Yield strength: *11-12 ksi (76-83MPa)

Elongation: 30-36%

Modulus of elasticity: ** Approx. 70 GPa

Thermal conductivity: 217 W/(m·K)

Thermal conductivity at 300°C: 226 W/(m·K)

All stated values are approximate values. All details given above are our current knowledge and experience, and are dependent on the equipment, parameters and operating conditions. The data provided in this document is subject to change and only intended as general information on a material set that is continually improving and developing. The data does not provide a sufficient basis for engineering parts. All samples were produced on an EOS M290. All tensile tests were performed at third party certified test labs such as Westmoreland Mechanical Testing & Research.

Please contact us at jacob@elementum3d.com for additional information.

*ASTM E8, **ASTM E494-15