

AlSi10Mg

Metal | SLM

Light, heat-conducting aluminium with the biggest metal build size — heat treatment included.

The most widely printed aluminium and the one with the largest build volume we offer in metal. It is light (2.65 g/cm³), conducts heat well and handles thin ribs and lattice structures, but it is less ductile (about 2 % elongation), so we advise against it for parts that must bend before they fail.

Mechanical properties

Density	2.65 g/cm ³
Hardness	100 HV
Surface roughness Ra	16 µm
Surface roughness Rz	70 µm
Yield strength	190 MPa
Elastic modulus	70 GPa
Tensile strength	300 MPa
Elongation at break	2%

Typical applications

- Heat sinks and cooling blocks
- Brackets and mounts
- Enclosures
- Jigs and fixtures
- Engine-block prototypes
- Turbine-blade test pieces

Maximum part size

427 × 527 × 460mm (larger parts can be split and joined)

Available finishes

CNC-machined surfaces · Colour anodised · E-coated · Electroplated · Glass-bead blasted · Mirror polished · Polished · Powder coated · Sandblasted · Screen printed · Spray painted, gloss · Spray painted, matte · Spray painted, soft-touch · Tapped threads · Tumbled · Welded

Values are indicative and depend on part geometry, build orientation and post-processing. For project-specific requirements contact info@3dexperts.me. Instant price: 3dexperts.me/quote