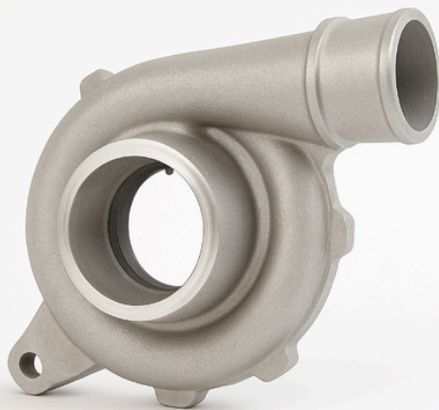


Inconel 625

INDUSTRIAL GRADE MATERIALS FOR SLM 3D PRINTING



MATERIAL NAME

Inconel 625

COLOR

Silvery-gray

PROCESS

SLM

PRODUCT DESCRIPTION

Inconel 625 is a high-strength, high-temperature, and corrosion-resistant nickel-based alloy primarily composed of nickel, chromium, molybdenum, and niobium. It offers excellent oxidation resistance, stress corrosion resistance, and high-temperature performance, making it widely used in aerospace, nuclear industry, marine engineering, and chemical equipment, especially in harsh corrosive environments and high-temperature load conditions.

TYPICAL APPLICATIONS

- Aerospace propulsion system
- Marine engineering valve housing
- Chemical equipment and custom parts
- Heat exchanger components

PRODUCT SAFETY

If there are sharp edges on the surface of the parts, be careful not to scratch them. If there are metal powders on the parts, be careful not to inhale them into the lungs and avoid contact with strong acids and alkalis.

PRODUCT DELIVERY & WAREHOUSING

- **STORAGE**

Store in a dry, ventilated environment, avoiding moisture and exposure to corrosive chemicals. Apply protective coatings to prevent oxidation or corrosion of metal surfaces.

- **USAGE AND HANDLING**

Remove burrs and residual materials from the product. Use protective equipment like gloves when handling.

Avoid using the product in extreme environments or high-load scenarios; regularly inspect for mechanical performance.

- **CHEMICAL COMPATIBILITY**

Avoid contact with strong acids, alkalis, or corrosive solvents. Use appropriate cleaning and maintenance solutions.

Assess risks of oxidation, corrosion, or magnetic effects based on specific application environments.

MATERIAL PROPERTIES

Formed Part Properties	Value
Hardness	/
Yield Strength (Mpa)	/
Tensile strength (Mpa)	/
Heat-Treated Properties	Value
Hardness	/
Yield Strength (Mpa)	603MPa
Tensile strength (Mpa)	969MPa
Elongation at break	41%
Elastic Modulus (Gpa)	/

Tips: Want to explore a wider range of materials? Check out <https://www.unionfab.com/materials>



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