A Manufacturing Company

STAINLESS STEEL 316L

GET IN TOUCH CH +86 17169960305
OR AT SALES@OLA3DP.COM
WWW.OLA3DP.COM

OLA Product Name: Stainless Steel 316L

Color: Natural (Metallic Gray)

Process: SLM

MATERIAL SUMMARY

Tolerance: ±200μm or ±0.2%

Lead Time: 72 hours

Maximum Printing Size: 350mm × 400mm × 360mm

Notes:

EVALUATION

- **Advantages**
  ① Excellent corrosion resistance in air, steam, water, acids, and alkalis.
  ② High-temperature resistance up to 900°C.
  ③ Certified for medical and food-grade applications.
  ④ Maintains mechanical properties after post-processing.
- **Disadvantages**
  ① Visible surface texture (Ra ~10μm); minor pits and layer lines may appear.
  ② Higher density (7.9g/cm³); not suitable for lightweight applications.

KEY FEATURES

316L stainless steel is a low-carbon, austenitic alloy widely used for its exceptional resistance to chemicals, acids, and high temperatures. As a biocompatible, food-grade material, it's ideal for aerospace, medical implants, molds, prototypes, and luxury jewelry. It maintains strength and ductility under demanding conditions, making it a reliable choice for functional and end-use parts.

MATERIAL PROPERTIES

- Surface Roughness (Sandblasted): ≥6μm
- Hardness (As-Printed): HRB 93 ± 3
- Hardness (After Heat Treatment): HRB 93 ± 3
- Tensile Strength (As-Printed): 700 ± 100 MPa
- Tensile Strength (After Heat Treatment): 720 ± 100 MPa
- Yield Strength (As-Printed): 510 ± 100 MPa
- Yield Strength (After Heat Treatment): 520 ± 100 MPa
- Elongation (As-Printed): 35% ± 10
- Elongation (After Heat Treatment): 32% ± 10

APPLICATION SCENARIOS

- Aerospace, molds, prototypes, medical devices, electronics, jewelry, and food-contact parts

POST-PROCESSING OPTIONS

- Thread tapping
- Sand-blasting