

OLA Product Name: OLA 7100

Color: Grey-Black

Process: SLS

MATERIAL SUMMARY

Tolerance: $\pm 300\mu\text{m}$ or $\pm 0.3\%$

Lead Time: 24 hours

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

Notes:



EVALUATION

- **Advantages:**
 - ✓ High heat resistance and mechanical strength
 - ✓ Good toughness, suitable for functional parts
 - ✓ No support needed during printing – ideal for complex structures
- **Limitations:**
 - ✗ Grainy surface finish and slightly lower accuracy than resin materials (e.g., OLA 8000)
 - ✗ Contains carbon powder – conductive, not suitable for electrical insulation applications

KEY FEATURES

OLA 7100 Nylon is a high-performance SLS material designed for functional prototyping and end-use parts. With excellent thermal stability, mechanical strength, and toughness, it is ideal for complex structural parts that require durability. The material prints without support structures, making it suitable for geometrically intricate components.

MATERIAL PROPERTIES

- Heat Deflection Temperature: 129°C
- Melting Point: 183°C
- Tensile Strength: 33.4–41.4MPa
- Tensile Modulus: 1600MPa
- Elongation at Break: 6.3–16%
- Flexural Strength: 46.3MPa
- Flexural Modulus: 1300MPa
- Notched Impact Strength: 4.9KJ/m²
- Unnotched Impact Strength: 13.2KJ/m²
- Dielectric Constant (60Hz): 3.5

APPLICATION SCENARIOS

- **Home Appliances:** Structural and visual testing of air conditioners, purifiers, vacuums, fans, juicers, etc.
- **Automotive:** Prototyping and validation of bumpers, mirrors, dashboards, lights, and seats.
- **Consumer Electronics:** Structural testing of laptops, phones, cameras, game devices, speakers, etc.
- **Electromechanical:** Components like switches, sockets, tools, panels, and instruments.
- **Art & Toys:** Functional testing of models, figurines, and design prototypes.

POST-PROCESSING OPTIONS

- Thread tapping
- Black Dyeing