



MATERIALS FOR 3D PRINTING NYLON

PA12 - PA2200

White nylon

PA12 is the most widely used material for 3D printing with Selective Laser Sintering, as you can print fully functional parts with good mechanical and thermal properties. It is possible to provide nylon with a 3S surface treatment. This significantly reduces moisture absorption and a smoother surface is achieved. 3S surface treated nylon is approved as food contact material (FCM).

We print with Selective Laser Sintering (SLS). The technology prints in powder and uses a laser to sinter the powder layers together. 3D printing with SLS offers a great deal of design freedom, as the parts do not need support material.

The technology can produce parts that comply with ISO 2768-m 1; however, the tolerances depend significantly on the geometry of the part. At the Danish Technological Institute, our 3D printing production is also ISO 9001 certified.



Technology:

- Select Laser Sintering

Printer:

- EOS - P396
- 3D Systems - ProX 6100

Build volume:

- EOS: 320 x 320 x 600 mm
- 3D: 290 x 340 x 440 mm

Application:

- Industrial use

Possible post-processing:

- Deburring
- Media blasting
- Colouring
- Lacquering
- 3S surface sealing

Customization:

Contact us if you have specific requests for surface roughness and material properties.

MATERIAL PROPERTIES

TENSILE STRENGTH [Rm]	48 MPa
YIELD STRENGTH [Rp0,2]	44 MPa
ELONGATION AT BREAK [A]	22 %
VICKERS HARDNESS [Shore D]	80,6
PART DENSITY	>96,0 %
MATERIAL MASS DENSITY	0,95 g/cm ³

SURFACE TEXTURE

Raw

3S surface sealing

Average roughness [Ra]	10 ±3	1,2*
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*Depending on geometry

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