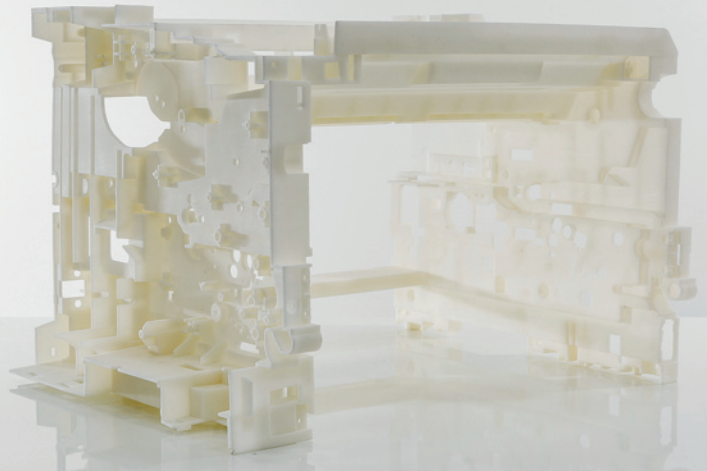


## PA12

Selective Laser Sintering (SLS)



### Durable material ideally-suited for parts that withstand functional testing

General purpose material offering balanced mechanical properties, with good surface finish and feature definition. Ideal for physical testing and functional use. Parts made from Nylon 12 are robust, stable for long periods of time, chemically resistant and extremely versatile. This cost-effective material is suitable for a variety of applications, including functional prototypes and qualified series production parts. Parts made with this material are also biocompatible (under EN ISO 10993-1 and USP/level VI/121°C) and certified for contact with foodstuffs (under the EU plastics directive 2002/72/EC) under certain conditions.

#### Why choose PA12?

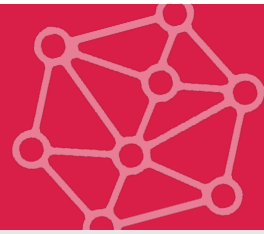
- Balanced mechanical properties
- Excellent surface resolution and feature detail
- Good chemical resistance
- Low moisture absorption
- Compatible with autoclave sterilisation
- White in appearance

#### Applications

- Housing and enclosures
- Complex thin-wall ductwork and snap-fit design
- Functional prototypes that approach end-use performance properties and need to withstand functional testing
- Low-to-mid volume end-use parts

# PA12

Selective Laser Sintering (SLS)



General properties	Value (XY Axis)	Test method
Colour	White	Visual
Part density	0.930 g/cm <sup>3</sup>	Internal method

Thermal properties	Value (XY Axis)	Test method
Melting temperature	176° C	ISO 11357-1 (10°C/min)
Vicat softening temperature (50°C/h; 50 N)	163° C	ISO 306
Heat deflection temperature (1.82MPa)	86° C	ASTM D648

Mechanical properties	Value (XY Axis)	Test method
Tensile strength (ultimate)	50 MPa	ISO 527
Tensile modulus	1700 MPa	ISO 527
Elongation at break	20 %	ISO 527
Flexural modulus	1500 MPa	ISO 178
Impact strength – Charpy (notched, 23°C)	4.8 kJ/m <sup>2</sup>	ISO 179/1eA
Impact strength – Charpy (un-notched, 23°C)	53 kJ/m <sup>2</sup>	ISO 179/1eU
Shore D hardness	75	ISO 868

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Specifications are subject to change without notice

The technical data indicated above is an average value of the test result of a part created under proper management and appropriate conditions. The value is for reference and is not guaranteed.