

PA11-SX 1450

Polyamide 11 - 100% bio-based powder for Laser Sintering



The PA11-SX 1450 is a high-performance polyamide 100% sourced from a renewable raw material. It is characterized by an outstanding impact resistance, high ductility and elasticity.

This material meets the **USP Class VI requirements*** that makes it particularly suitable for end-use parts in **medical and dental industries** (orthotics, surgical tools, drill guides...). Due to its unparalleled mechanical strength and durability, the PA11-SX 1450 is also suitable for additive manufacturing projects in other industries such as automotive or aerospace.

The PA11-SX 1450 can be processed with any ProMaker P series printers.



KEY FEATURES & BENEFITS

- Meet USP Class VI requirements**
- Ductility, elongation and shock resistance
- Excellent resistance and durability over time



TYPICAL APPLICATIONS

- Orthotics
- Surgical tools or drill guides
- Snap fit
- Living hinges

MATERIAL PROPERTIES

	TEST METHOD	VALUE
Base material		Polyamide 11
Appearance		White- cream
Bulk density [g/cm ³]	ISO 1068-1975	0.62
Sintered part density [g/cm ³]	Prodways Method	1.02
Average particle size (µm)	Laser diffraction	46
Melting point [°C]	ISO 11357-3	198 - 205

MECHANICAL PROPERTIES*

	TEST METHOD	VALUE
Tensile strength [MPa]	ISO 527	40 - 50
Young modulus [MPa]	ISO 527	1300 - 1700
Tensile elongation at break [%]	ISO 527	35 - 45
Flexural modulus (MPa)	ISO 178	1200 - 1300
HDT/A (1.8 MPa) [°C]	ISO 75	44

* Performance characteristics may change according to product application, operating conditions or level of refresh.
**For more information: [contact our experts](#)