## PRODWAYS MATERIALS



### PA12-L1600

# Polyamide 12 powder for Laser Sintering

The PA12- L1600 is characterized by its excellent mechanical properties and a high elongation at break. This material is easy to process, presents a low water absorption and a good recyclability.

The PA12-L1600 meets the high expectations of the manufacture functional prototypes and end-use parts with high mechanical properties and toughness. It is also suitable for complex production and prototype plastic parts in the automotive or aerospace industry.

The PA12-L1600 can be processed with any ProMaker P series printers.

## KEY FEATURES & BENEFITS

- Excellent mechanical properties
- Good part surface ease of postprocessing
- Low water absorption

# ✓ ✓ TYPICAL✓ ✓ APPLICATIONS

- Functional prototypes and enduse parts with high mechanical properties and toughness
- Alternative for complex spare parts production
- Multi-purpose industrial applications

#### **MATERIAL PROPERTIES**

	TEST METHOD	VALUE
Base material		Polyamide 12
Appearance		White
Bulk density [g/cm³]	Prodways Method	0.48
Sintered part density [g/cm³]	Prodways Method	0.95
Average particle size (µm)	Laser diffraction	60
Melting point [°C]	ISO 11357-3	179 - 187

#### **MECHANICAL PROPERTIES\***

	TEST METHOD	VALUE
Tensile strength [MPa]	ISO 527	40 - 45
Young modulus [MPa]	ISO 527	1450 - 1600
Tensile elongation at break [%]	ISO 527	30 - 36
Flexural modulus (MPa)	ISO 178	1200 - 1300
HDT/A (1.8 MPa) [°C]	ISO 75	83,5

 $<sup>{}^{\</sup>star}\operatorname{Performance}\operatorname{characteristics}\operatorname{may}\operatorname{change}\operatorname{according}\operatorname{to}\operatorname{product}\operatorname{application},\operatorname{operating}\operatorname{conditions}\operatorname{or}\operatorname{level}\operatorname{of}\operatorname{refresh}.$ 

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