ADDITIVE+

TECHNICAL DATASHEET · SLS MATERIAL

Nylon Powder KSPA12 — White PA12 for SLS

A premium white PA12 nylon powder for selective laser sintering — clean white parts, strong durable mechanicals, and high powder reusability. In stock and shipping from Los Angeles.

46 MPa	1600 MPa	20%	~50 µm	187 °C
TENSILE STRENGTH	TENSILE MODULUS	ELONGATION	D50 · PSD	MELTING POINT

Package: 10 kg / 22.05 lbs sealed · $75/kg · $750 per package · In stock, ships from Los Angeles.

Material overview

KSPA12 is a white PA12 nylon powder with a D50 particle size of approximately 50 microns and a narrow, uniform distribution. Its high sphericity and exceptional fluidity give even recoating and consistent packing density, for clean white parts with a smooth surface finish and strong, durable mechanical properties. The powder has a high reusability rate and keeps its mechanical properties, surface finish and colour stable even at near-full powder reuse — keeping cost per part low.

Advantages

- Clean white parts with a smooth, consistent surface finish.
- Fine ~50 µm powder, narrow PSD, high sphericity and fluidity.
- Maintains mechanicals, finish and colour near full powder reuse.
- Strong and durable, with good chemical resistance.

Applications

- Functional structures and concept prototypes.
- Jigs, fixtures and tooling.
- End-use brackets, housings, enclosures and clips.
- Automotive, aerospace, architectural and electronic parts.

Mechanical properties

Property	Value	Unit	Test standard
Tensile modulus	**1600**	MPa	**ISO 527**
Tensile strength	**46**	MPa	**ISO 527**
Elongation at break	**20**	%	**ISO 527**
Charpy impact strength	**38**	kJ/m²	**ISO 179**
Charpy notched impact strength	**7.5**	kJ/m²	**ISO 179**
Flexural modulus	**1400**	MPa	**ISO 178**
Flexural strength	**50**	MPa	**ISO 178**

Other properties

Property	Value	Unit	Test standard
Powder melting temperature (10 °C/min)	**187**	°C	**ISO 11357**
Vicat softening temperature (50 °C/h 50N)	**100**	°C	**ISO 306**
Density (laser sintered)	**0.94**	g/cm³	**Own method**
Density (powder)	**0.52**	g/cm³	**Own method**
Particle size (D50)	**50**	µm	**Laser diffraction**

Typical values; they vary with machine, processing and post-curing — confirm against your own build and refresh ratio. White PA12 is for CO_2 / infrared SLS systems; it does not sinter under blue / 450 nm diode lasers (use a grey or black grade).