

TECHNICAL DATA



KSPA12BK

Product Demonstration



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Material Overview

KSPA12BK is a black nylon powder with a particle size D50 of about 50 microns and a narrow and uniform distribution. It can be sintered using fiber laser or carbon dioxide laser, and the powder has high sphericity and extremely high fluidity. The powder reusability rate can be close to 100%, and the 3D printed parts can maintain excellent mechanical properties and excellent surface finish.

Advantages

- Can be sintered using fiber laser or carbon dioxide laser
- The particle size D50 of the powder material is about 50 microns, and the distribution is narrow and uniform. The powder has high sphericity and extremely high fluidity.
- Even when the powder reuse rate is close to 100%, it can still maintain excellent mechanical properties, and the printed parts still have a perfect surface finish.

Ideal Application

- Functional structures
- Concept prototypes
- Automotive, aerospace, architecture, electronic applications

Technical Datasheet

Mechanical property	Value	Unite	Test standard
Tensile Modulus	1600	Mpa	ISO 527
Tensile Strength	46	Mpa	ISO 527
Strain at break	20	%	ISO 527
Charpy impact strength	38	KJ/m ²	ISO 179
Charpy notched impact strength	7.5	KJ/m ²	ISO 179
Flexural modulus	1400	Mpa	ISO 178
Flexural Strength	50	Mpa	ISO 178

Other properties	Value	Unite	Test standard
Powder Melting temperature(10°C/min)	187	°C	ISO 11357
Vicat softening temperature(50°C/h50N)	100	°C	ISO 306
Density (lasersintered)	0.94	g/cm ³	Own method
Density(Powder)	0.52	g/cm ³	Own method
Particle Size (D50)	50	µm	Laser Diffraction

The above data are based on our current knowledge and experience, the values of which may vary and depend on individual machine processing and post-curing practices. The safety data given in above is for information purposes only and does not constitute a legally binding MSDS. The relevant MSDS can be obtained upon request from your supplier or you may contact Kings 3D directly at "info@kings3dprinter.com"

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