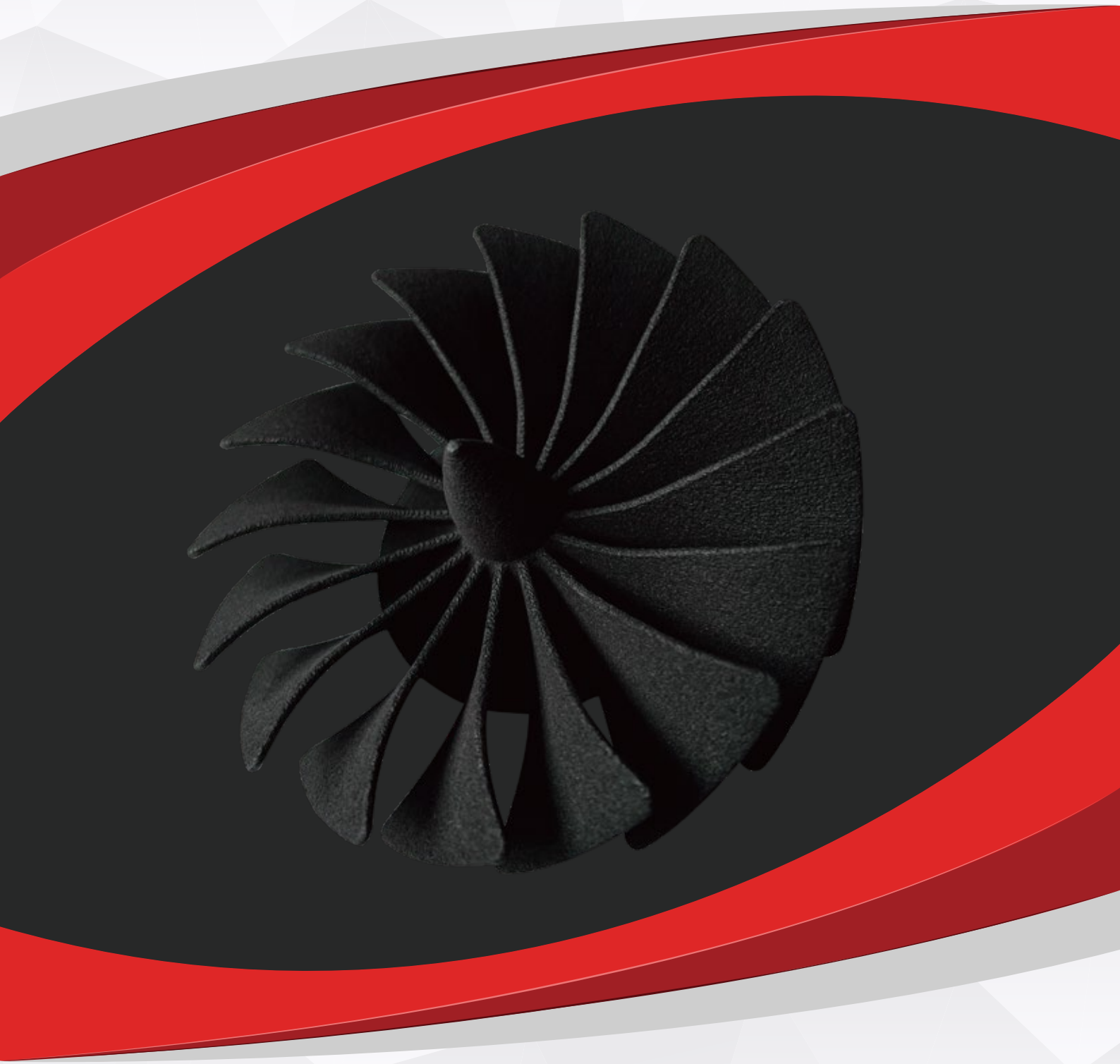
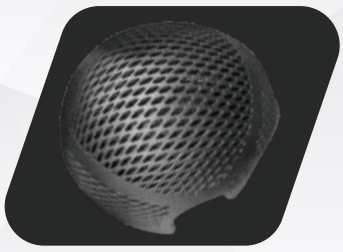
100% utilization

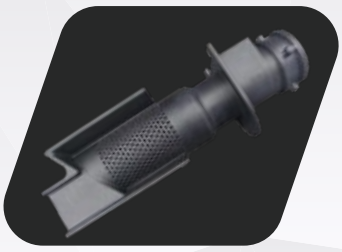
KSPA12BK

Kings team

Additive Material







Material Overview

KSPA12BK is a black nylon powder featuring a D50 particle size of approximately 50 microns, showcasing a narrow and uniform distribution. It can be sintered using fiber or carbon dioxide lasers, exhibiting high sphericity and exceptional fluidity. With a reusability rate approaching 100%, the 3D printed parts retain outstanding mechanical properties and a flawless surface finish.

Advantage

- ※ **Sinterable with fiber or carbon dioxide laser.**
- ※ **Powder particle size (D50) is around 50 microns, with a narrow and uniform distribution, high sphericity, and exceptional fluidity.**
- ※ **Retains excellent mechanical properties and achieves a flawless surface finish even with close to 100% powder reuse rate.**

Ideal Application

- ※ **Functional structures**
- ※ **Concept prototypes**
- ※ **Automotive, aerospace, architectural, and electronic applications**

Technical Datasheet

Mechanical Properties	Value	Unit	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/㎡	ISO 179
Charpy notched impact strength	7.5	KJ/㎡	ISO 179
Flexural modulus	1400	Mpa	ISO 178
Flexural Strength	50	Mpa	ISO 178

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

These values may vary and depend on individual machine processing and post-curing practices.

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