

Technical Data Sheet

Farsoon FS3300PA-F

| Version | Change history | Approved & Issued |
|---------|--|--------------------|
| V01 | New release (with limited data on reproducibility) | Date: Nov 29, 2019 |
| V02 | Update based on more data | Date: Feb 03, 2021 |

Product description:

PA1212-based plastic powder, considered for use in Powder Bed Fusion, e.g. Laser Sintering.

The black powder is optimized for absorbance of Fiber Laser Light for fast melting. It shows good oxidation resistance, good dimensional stability, excellent mechanical properties especially balance of strength and toughness, and easy for processing. Suitable for products with high mechanical properties and toughness requirements, parts manufacturing or smaller parts made with adhesives, as well as complex parts and plastic models, automotive pipelines, brake tubes, stocks, grips, trigger retainers, etc.

Supply Form:

Farsoon FS3300PA-F is supplied ready for processing in 10kg bags in a paper board box.

Product Safety:

Farsoon FS3300PA-F is considered for industrial use by professional workers only. Relevant industrial safety precautions must be followed whatever this product is being handled and processed. For additional information please consult the corresponding material safety data sheets.

Disclaimer:

Many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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| General Properties | Test method | Typical values |
|-------------------------------------|------------------|-------------------------------|
| Bulk Density | DIN EN ISO 60 | 0.45 – 0.55 g/cm ³ |
| Density of Parts | GB/T 1033 | 1,0 g/cm ³ |
| Color | ISO 11475 | Black |
| Thermal Properties | Test method | Typical values |
| Melting Point | ISO 11357 | 179 - 185°C |
| Heat Deflection Temp (HDT) 1.8 MPa | GB/T 1040.2-2006 | 72 – 84°C |
| Heat Deflection Temp (HDT) 0.45 MPa | GB/T 1040.2-2006 | 138 – 153°C |
| Mechanical Properties | Test method | Typical values |
| Tensile Strength* | GB/T 1040.2-2006 | 36 – 50 MPa |
| Tensile Modulus* | GB/T 1040.2-2006 | 1600 – 1900 MPa |
| Elongation at Break* | GB/T 1040.2-2006 | 5 – 21% |
| Flexural Strength* | GB/T 1040.2-2006 | 36 – 44 MPa |
| Flexural Modulus* | GB/T 1040.2-2006 | 950 – 1100 MPa |
| Impact Strength* (notched Izod) | GB/T 1843-2008 | 8 – 16 kJ/m ³ |
| Impact Strength* (unnotched Izod) | GB/T 1843-2008 | 11 – 34 kJ/m ³ |

* tested directly after built w/o pre-treatment

Application Example:



Sensor holders with wall thickness 0.3mm

Further Information:

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