

Technical Data Sheet

Ultrasint AP26

Technical Data Sheet for Ultrasint AP26

Version No.: 1.1, revised 08/2023

General information

Components

Powder Bed Fusion material with focus on Affordable Performance

Product Description

All Ultrasint grades have in common that they show precise feature control, balanced mechanical properties, high processing stability and simple surface reprocessing of 3D printed parts.

Ultrasint AP26 is a material especially developed to combine affordability with printed part performance and outstanding processability on and PBF equipment. Its lower melting temperature compared to other PBF materials allows for a processing temperature of 150-160 °C. Printed parts fulfil most requirements from form & fit prototyping to high-volume series parts. AP26 boasts of a very high dimensional stability, precise detail resolution, smooth surface as-printed and very high stiffness and rigidity – making it the material of choice for advanced prototyping and beyond.

Typical applications are:

- Form & Fit prototyping
- High performance series and spare parts
- Multi-purpose industrial goods
- Durable and rigid jigs, fixtures and tools

Delivery form & warehousing

Ultrasint AP26 powder should be stored at 15 – 25 °C (60 – 77 °F) in its originally sealed package in a clean and dry environment.

Product safety

Mandatory and recommended industrial hygiene procedures and the relevant industrial safety precautions must be followed whenever this product is being handled and processed. Product is sensitive to humid environment conditions. For additional information please consult the corresponding material safety data sheets.

For your information

Ultrasint AP26 comes in natural/ivory color. Electrical properties (e.g. volume resistivity, surface resistivity), chemical properties (e.g. resistance against particular substances) and tolerance for solvents are available upon request.

Notice

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

The safety data given in this publication is for information purposes only and does not constitute a legally binding Material Safety Data Sheet (MSDS). The relevant MSDS can be obtained upon request from your supplier or you may contact Forward AM directly at sales@basf-3dps.com.

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General Properties	Test Method	Typical Values
Bulk Density / kg/m ³	DIN EN ISO 60	570
Printed Part Density / kg/m ³	DIN EN ISO 1183-1	1280
Mean particle size d50 / μm	Laser Diffraction	45-55
Melting Temperature / °C	ISO 11357 (10 K/min)	172
Crystallization Temperature / °C	ISO 11357 (10 K/min)	99
Melt Volume Flow Rate / cm ³ /10min	ISO 1133 (250 °C, 2.16 kg)	50

Thermal Properties	Test Method	Typical Values
HDT/A (1.8 MPa) / °C	ISO 75-2	57
HDT/B (0.45 MPa) / °C	ISO 75-2	94

Electrical Properties	Test Method	Typical Values X-direction
Specific Volume Resistivity / Ωcm	IEC 62631-3-1	> 1E+16
Specific Surface Resistivity / Ω	IEC 62631-3-2	> 1E+16
Dielectric Strength (1mm) / kV/mm	IEC 60243-1	n.a

Mechanical Properties	Test Method	Typical Values X-direction	Typical Values Z-direction
Tensile Strength / MPa	ISO 527-2 (23 °C)	40	30
Tensile Modulus / MPa	ISO 527-2 (23 °C)	2500	2500
Tensile Elongation at break / %	ISO 527-2 (23 °C)	2.5	2
Charpy Impact Strength (notched) / kJ/m ²	ISO 179-1	2.2	n.a
Charpy Impact Strength (unnotched) / kJ/m ²	ISO 179-1	12	n.a

All values measured with virgin material.