

Preliminary Technical Data Sheet

Ultrasint PP

Components

Polypropylene powder for Laser Sintering

Product Description

Ultrasint PP is especially developed for the SLS process as an alternative to polyamide. In contrast to commonly used polyamides, Ultrasint PP has an excellent plasticity, higher elongation, low moisture absorption and durability. The fields of application vary widely, from automotive, electrical and sport industries, health care and orthopedic products. Ultrasint PP works perfectly for hinges and clips. It allows post processing like thermoforming or sealing. Ultrasint PP is resistant to most acids and bases and has a slight translucent appearance. Due to its attractive commercial value, it is an interesting material to expand 3D printing applications and volumes. Ultrasint PP has been successfully tested on most common SLS printers. Parameters for printing will be provided.

Delivery form and warehousing

Ultrasint PP powder should be stored at 15 - 25°C 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 PP comes in a white translucent color. Chemical properties (e.g. resistance against particular substances) and tolerance for solvents can be made available if these factors are relevant for a specific application.

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 BASF directly at 3d-printing@basf-3dps.com.

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We create chemistry

General Properties	Test method	Typical values
Bulk Density / kg/m ³	ISO 1068-1975	330
Printed Part Density / kg/m ³	ISO 61	890
Mean particle size d ₅₀ / μm	ISO 13320	67-77
Melting Temperature / °C	ISO 11357-3 (20 K/min)	139
Crystallization Temperature / °C		
Melt Volume Flow Rate / cm ³ /10min		

Mechanical Properties	Test method	Typical values x-direction	Typical values z-direction
Tensile Strength / MPa	ISO 527-2:93-1B	25	
Tensile Modulus / MPa		1400	
Tensile Elongation at break / %		50	
Flexural Strength / MPa	DIN EN ISO 178	1150	
Flexural Modulus / MPa			
Flexural Elongation at break / %			
Charpy Impact Strength (notched) / kJ/m ²	ISO 179-1	22	
Charpy Impact Strength (unnotched) / kJ/m ²			
Izod Impact Strength (notched) / kJ/m ²	ISO 180		
Izod Impact Strength (unnotched) / kJ/m ²			

Thermal Properties	Test method	Typical values
HDT/A (1.8 MPa) / °C	ISO 75-2	56
HDT/B (0.45 MPa) / °C		71
Vicat/A (10 N) / °C	ISO 306	
Vicat/B (50 N) / °C		

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