

Preliminary Technical Data Sheet

Adsint PA11 black CF

Components

Carbon fiber filled Polyamide 11 powder for Laser Sintering

Product Description

Adsint PA11 black CF, a bio-based material (castor oil), is a functionally optimized PA11 for high performance applications. Parts made of this material show a high tensile strength, elasticity and high impact resistance. Typical applications are in environments where high strengths and stiffnesses are required (e.g. motorsports) and/or exposure to special surroundings (e.g. chemical, detergents, oil) may occur. Due to its high ductility, it does not splinter in crash situations. Adsint PA11 is processable on most common SLS printers. Parameters for printing will be provided.

Delivery form and warehousing

Adsint PA11 black CF 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

Adsint PA11 black CF comes in solid black 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. Generally, these properties correspond to publicly available data on polyamides.

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.

Contact: 3d-printing@basf-3dps.com

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General Properties	Test method	Typical values
Bulk Density / kg/m ³	ISO 1068-1975	
Printed Part Density / kg/m ³	ISO 61	1070
Mean particle size d50 / μm	ISO 13320	35-45
Melting Temperature / °C	ISO 11357-3 (20 K/min)	201
Crystallization Temperature / °C		
Melt Volume Flow Rate / cm ³ /10min		

Mechanical Properties	Test method	Typical values x-direction	Typical values y-direction
Tensile Strength / MPa	ISO 527-2:93-1B	66	57
Tensile Modulus / MPa		4060	2500
Tensile Elongation at break / %		9	14
Flexural Strength / MPa	DIN EN ISO 178		
Flexural Modulus / MPa			
Flexural Elongation at break / %			
Charpy Impact Strength (notched) / kJ/m ²	ISO 179-1	68	86
Charpy Impact Strength (unnotched) /			
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 75f	129
HDT/B (0.45 MPa) / °C		
Vicat/A (10 N) / °C	ISO 306	
Vicat/B (50 N) / °C		

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