

Technical Data Sheet

ADSINT® PA11 CF

AdSint® PA11 CF is a composite material based on PA11 and reinforced with carbon fiber. The end parts offer exceptional stiffness combining high tensile and impact strength. This high-tech material is ideal for light weight, conductive and metal replacement applications. Its excellent mechanical properties are influenced by the orientation of the fibers making **AdSint® PA11 CF** suitable for automotive and aerospace applications. **AdSint® PA11 CF** has been tested on most common SLS printers. Parameters for printing will be provided. It is available in anthracite or deep black colour. The refresh rate is between 35% - 50%, depending on the application.

General properties

Measurement	Method & Conditions	Metric Value
Mean Diameter	ISO 13320	40µm
Maximum particle size		100µm
Part Density 23°C	ISO 61	1,07 ± 0,05g/cm ³

Thermal properties

Measurement	Method & Conditions	Metric Value
Melting point T ^o m	ISO 11357-3	201°C
Melting point T ^o m (Sintered Part)	ISO 11357-3	190± 2°C
Glass transition temperature T ^o g (Sintered Part)	ISO 11357-3	41±2°C
Heat Deflection Temperature (HDT @1.8MPa)	ISO 75f	129± 2°C

Mechanical properties

Measurement	Method & Conditions	Metric Value
Tensile modulus (X)	ISO 527-2:93-1B	4060 ± 100 MPa
Tensile modulus (Y)	ISO 527-2:93-1B	2500 ± 100 MPa
Tensile strength (X)	ISO 527-2:93-1B	66 ± 1 MPa
Tensile strength (Y)	ISO 527-2:93-1B	57 ± 1 MPa
Elongation at break (X)	ISO 527-2:93-1B	9 ± 1 %
Elongation at break (Y)	ISO 527-2:93-1B	14 ± 1 %
Charpy – Impact strength (Unnotched) (X)	ISO 179 1eU (23°C)	68 ± 2 kJ/m ²
Charpy – Impact strength (Unnotched) (Y)	ISO 179 1eU (23°C)	86 ± 2 kJ/m ²
Hardness (Shore D – instantaneous)	ISO 868 (20°C)	78 ± 1

Electrical properties

Measurement	Method & Conditions	Metric Value
Surface resistivity (X)		4×10^3 ohm. square
Surface resistivity (Y)		4×10^3 ohm. square

Handling – storage

Store the product in original packaging away from moisture and heat. Under these conditions, the material will maintain its technical properties for 3 years. Once the material passes the 3 year limit, it will be necessary to perform testing of the specified data to restart the shelf life period.

For processing the material, please use gloves. The particle shape of the additives can irritate the skin.

Delivery Form

The material will be delivered in 2kg bottles or 20kg drums (2x10kg powder bags).

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