

# PA11 Carbon Fiber

PA 11 Carbon Fiber is a bio-derived (castor oil) powder composite material based on Polyamide 11 enhanced with Carbon Fiber for better performance and rigidity. It features a high strength-to-weight ratio and high thermal properties. Its well-balanced profile of mechanical and thermal properties while maintaining good impact strength makes it one of the strongest and most versatile materials available on the powder market dedicated to SLS printing technology.



## Properties

Dedicated for	Lisa PRO <sup>1</sup>	
Nitrogen needed	Yes	
Flexural Strength	100 MPa	PN-EN ISO 178:2019
Tensile Strength	81 MPa	PN-EN ISO 527-1:2012
Tensile modulus (Young)	2950 MPa	PN-EN ISO 527-1:2012
Impact strength (Charpy - unnotched)	113.65 kJ/m <sup>2</sup>	PN-EN ISO 179-1:2010
Heat Deflection Temperature at 1.8 MPa / 0.45 MPa	170/191 °C	PN-EN ISO 75-2:2013-06 / PN-EN ISO 75-2:1998

## Test method

## FEATURES

- Best tensile and flexural strength
- Best thermal resistance
- Good impact resistance
- High stiffness
- Good elongation at break
- Good surface quality
- Good chemical resistance

## APPLICATIONS

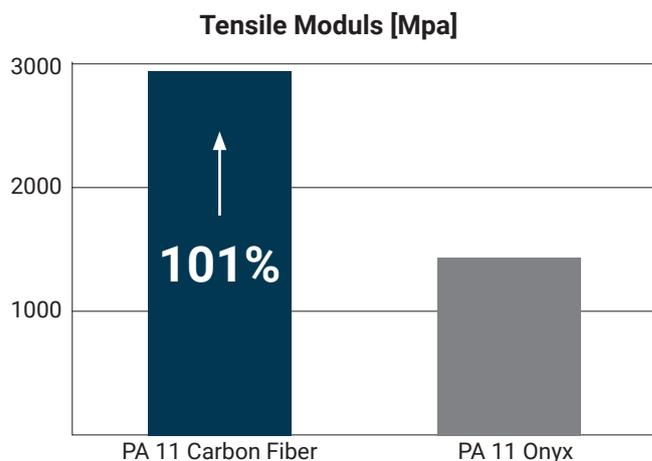
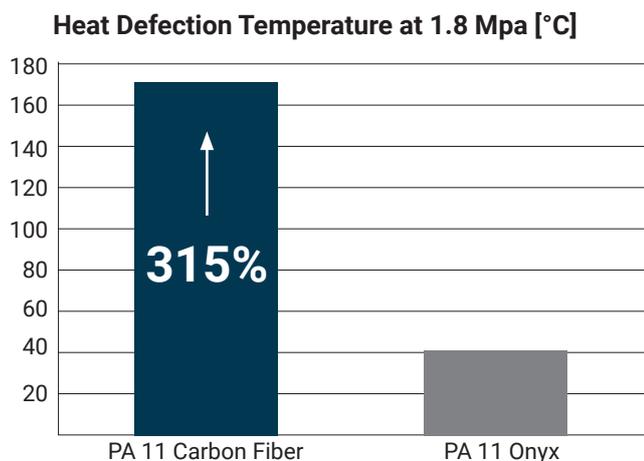
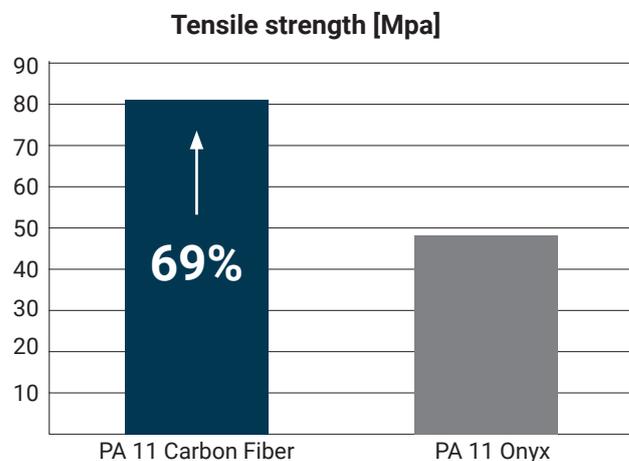
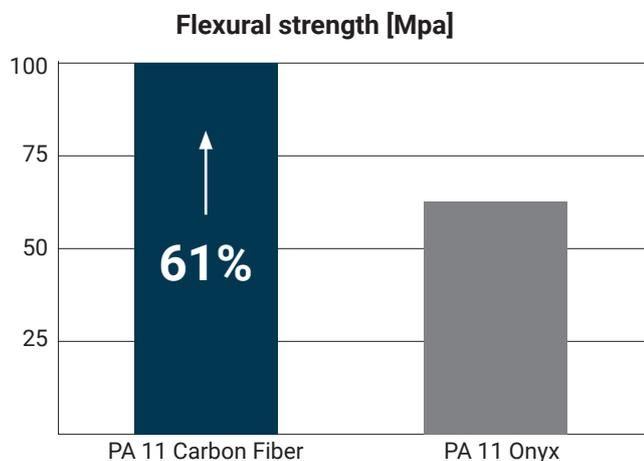
- Automotive (high performance parts, metal replacement parts)
- Universities/labs (mechanical, composites)
- Extreme applications (motorsports, lightweight structures, temperature)
- Maintenance and Repair
- Medical - prosthesis
- Aerospace models



<sup>1</sup> Can be used only with Sinterit Studio Advanced.

Information provided within this document are average values for reference and comparison only. Parameters presented in this specification are subject to change. Final part properties may vary based on printed part design and print orientation. All mechanical tests were carried out on samples conditioned to ISO standards only, at (23 ± 2) °C and (50 ± 5) % r. h.

# PA 11 Carbon Fiber vs PA 11 Onyx



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