

PA11 Carbon Fiber

Material's Technical Data Sheet

One of the strongest and most versatile materials available on the powder market dedicated to SLS printing technology.



Compatible with:



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



Properties

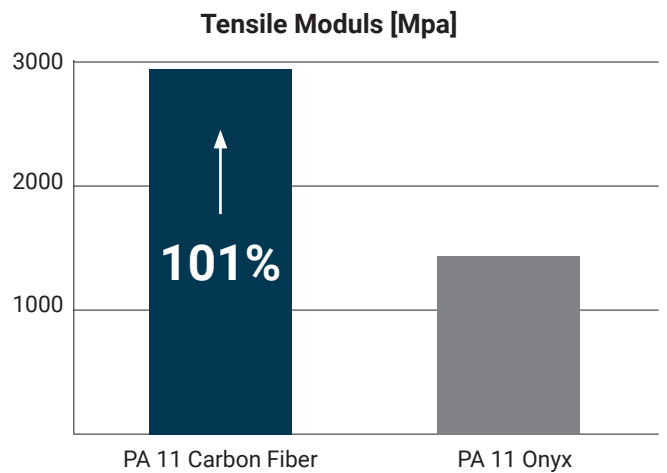
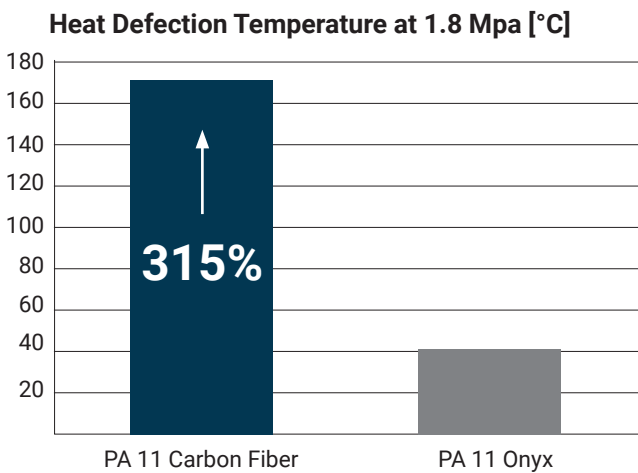
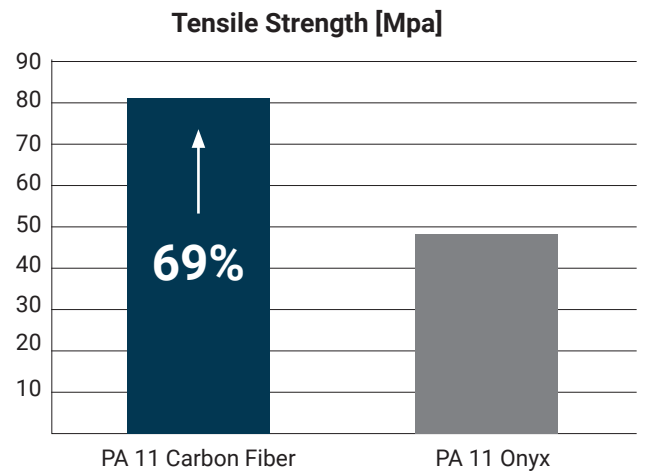
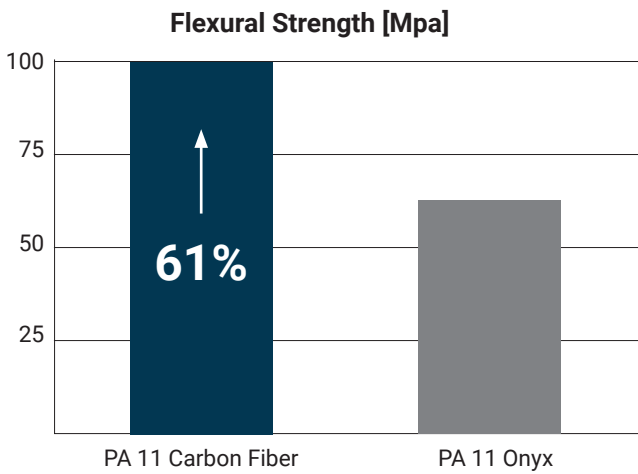
Test method

| | | |
|---|--------------------------|--|
| Material refreshing ratio ¹ | 40% | |
| 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 ² | 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 |

1. Refresh ratio is the amount of refreshing powder that is required to be mixed after the printing with unsintered material.

Information provided within this document are average values for reference and comparison only. All tests were performed with print samples from Lisa/Lisa Pro printers. 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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