

# ZYYX proCarbon™



An Engineering Material for the ZYYX pro

The proCarbon™ is a nylon based filament reinforced with carbon fibers. It is developed to allow professionals to rapidly produce customized, high-strength parts on their desks. Using the ZYYX proCarbon, you can easily create functional prototypes and end-use parts such as tools, jigs, and fixtures.

The proCarbon™ comes vacuum sealed in a proTect™ protection bag, ready for printing. The proCarbon shall be used with the Carbon0.6 SwiftTool™. The Carbon0.6's hot-end nozzle is made of hardened steel and optimized for the abrasive proCarbon material.



## Technical Data - proCarbon™

| Property                   | Specification                                       |
|----------------------------|---|
| Chemical name              | Polyamide reinforced with 20 % carbon fiber strands |
| Density                    | 1.20 g/cm <sup>3</sup>                              |
| Colour                     | Natural (dark grey)                                 |
| Roll size                  | 1.0 kg  |
| Filament diameter          | 1.75 mm   |
| Distortion temperature     | 160 °C  |
| Tensile strength           | 118 MPa   |
| Elongation at break        | 5 %   |
| Bending strength           | 164 MPa   |
| Flexural modulus           | 8 500 MPa   |
| Izod impact strength       | 11.5 kJ/m <sup>2</sup>                              |
| Typical printing shrinkage | 0.2-0.6 % (x and y directions), 0 % (z direction)   |
| ZYYX printer compatibility | ZYYX pro  |
| Recommended storage        | Vacuum sealed to keep from moisture                 |
| Water absorption           | 1.0 weight-%/day                                    |
| Volume resistivity         | <10 <sup>3</sup> Ω·cm                               |

All specifications can be changed without prior notice.

## Print examples

