

Factsheet | PP GF30

The best of both worlds

Polypropylene is one of the most preferred thermoplastic in different industries, especially in automotive sector. However, high level of reinforcement was always a problem in filament making. PP GF30 contains special glass fibers that are designed for filament making and 3D printing. This will ensure the printed objects are functionally working, under certain temperature and mechanical loads. Thanks to its UV-resistance, it is more suitable than any other PP based filament for applications that are directly exposed to sun light.

PP inherently uptake lower moisture than PA. In combination with high level of glass fiber reinforcement, PP GF30 is a filament of selection for exceptional working environments.

PP GF30 combines great features that couldn't be combined before: printing stiffer parts with UV resistance is now possible. To take full advantage of this, please follow the print guidelines.



PP GF30 is ideal when extreme stiffness is required in humid environments.

Advantages of PP GF30

- Excellent chemical resistance
- Low density
- Low moisture uptake
- High heat resistance
- Improved UV-resistance

PP GF30 – Printing with a high level of reinforcement is now possible

Property	PP GF30	PAHT CF	PET CF
Chemical resistance*	++	+	+/-
Low moisture uptake	++	+	+
Easy to print	-	+	++
Heat resistance	+	++	+
Post processing**	+	++	+

* According to suppliers data

** Post processing required after printing (PLA = ++)



Rotor in PP GF30 – application where low weight and high stiffness is required.

Guideline for Print Settings*

Nozzle temperature	230 – 250 °C
Nozzle**	≥ 0,6 mm diameter
Bed temperature	20 - 40 °C
Fan Speed	up to 50%
Bed modification***	Fiber reinforced PP tape (Scotch)
Print speed	30 – 80 mm/sec
Top/Bottom thickness	0.6 mm (3 layers)
Shell thickness	1.2 - 1.8 mm
Layer Height	0.2 - 0.4 mm

* The Innofil3D product data is provided in good faith and represents typical properties based on our current knowledge and experience, not to be construed as specification limits or minimum values. Product properties may be changed without notice. This document does not create any liability, warranty or guarantee of product performance. It is the buyer's responsibility to determine the suitability of Innofil3D products for the intended application.

** PP GF30 is an abrasive material. A hardened nozzle (steel or ruby) 0.6 mm is advised to prevent clogging.

*** For adhesion to the bed we advise to apply a layer of strapping tape to the print surface. We achieved the best results with Scotch® Extreme strapping tape.