XSTRAND™ 3D Printing filaments by Owens Corning: redefining additive manufacturing performance
Reinforced materials enabling new performance

- Materials designed for functional prototyping and industrial applications
- Excellent layer adhesion and reduced warping effect compared to neat materials
- Very stiff and strong materials
- Large operational temperature range: -20°C to 120°C
- Good chemical and UV resistance
- Engineered reinforced plastics
  - XSTRAND™ GF30-PP
  - XSTRAND™ GF30-PA6
Applications for XSTRAND™ filament in many industries

INDUSTRY & TOOLING

SMALL APPLIANCES & ELECTRONICS

TRANSPORTATION

SPORT & LEISURE
XSTRAND™ outperforms ABS and PA6 competition

+50 to 250% improvement compare to ABS and PA6 competition*

*Values based on Owens Corning's internal tests
XSTRAND™ references meet industry needs

**GF30-PP** references available in black color:

<table>
<thead>
<tr>
<th>XSTRAND™ GF30-PP</th>
<th>1,75mm</th>
<th>500g spool</th>
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**GF30-PA6** references available in black color:

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Best settings for FFF 3D printers

- Designed to be compatible with most of open Fused Filament Fabrication 3D printers available on the market

**Warning:**

When melted, XSTRAND™ filament can be abrasive due to its glass reinforcement. Printing with XSTRAND™ may reduce brass nozzles and extruder driving wheels lifetime. For a better experience, using hardened steel nozzles and extruder driving wheels is advised.

**Recommended printing parameters:**

- Nozzle temperature: 220-280°C
- Bed temperature: 80-110°C
- Printing speed: 30-100mm/s
- Nozzle diameter: > 0.4mm
Recommended 3D printer components for XSTRAND™ GF30-PP tested by Owens Corning

- **Hardened steel Hercules™**

  More information [here](#)

- **Dedicated perforated plate (Zortrax)**
- **HDPE sheet**
- **PP adhesive**
- **Solution for glass plate**
Recommended 3D printer components for XSTRAND™ GF30-PA6 tested by Owens Corning

- **Hardened steel Hercules™**

  More information [here](#)

  Dedicated perforated plate (Zortrax)
  PEI sheet
  PI (Kapton) adhesive

**3D Printer settings**

- **Storage and safety**
- **Customer testimonial**
- **Owens Corning**
- **Contact & Orders**
**STORAGE**

XSTRAND™ filaments must be stored in a dry and temperate location. The product should remain in its original packaging, preferably closed, until beginning of use.
- **GF30-PP** product is not very sensitive to moisture and does not require to be unclosed in a dry environment during printing.
- **GF30-PA6** is very sensitive to moisture and must be dried at least 4h in the oven at 80°C prior to use to allow optimal printing results. The spool needs to be stored in a dry case (Pelican type) even during printing.

**SAFETY**

Material Safety Data Sheet available [here](#).

During use of the products, extrusion fumes may be released. Ensure sufficient ventilation and air extraction to avoid inhalation. In case of insufficient ventilation, wear suitable respiratory equipment.

If you apply a sand process after printing your part, make sure you wear safety gloves and appropriate dust mask.
XSTRAND™ material redefines Rossignol opportunities

"Owens Corning's new-generation materials mean we can make functional prototypes of our products."

Nicolas Puget
Advanced Research Manager,
Rossignol group
Owens Corning: Global company founded in 1938

A world leader in glass fiber composites

More than 500 researchers in five R&D centers

2016 Sales $5.7 billion

17,000 Employees in 33 countries

3D Printing labs in France and in Ohio, USA
This information and data contained herein is offered solely as a guide in the selection of reinforcement. Rating contained in this publication is based on actual laboratory data, field test experience and observation of overall market use. We believe this information to be reliable, but do not guarantee its applicability to the user’s process or assume any responsibility or liability arising out of its use or performance. The user agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Statements in this publication shall not be construed as representations or warranties or as inducements to infringe any patent or violate any law safety code or insurance regulation. Owens Corning reserves the right to modify this document without prior notice. Pub. 10022734.

XSTRAND™ 3D Range product sheet Rev. 2 January 2018

Contact & Orders:
3Dprinting@owenscorning.com