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Ultrafuse® Pellets PP GF30

Premium Glass Fiber Reinforced Micro-Pellets:

Excellent Extrusion and Surface Quality in Demanding Applications

Material Overview

03-07-2024



OVERVIEW

Introducing Ultrafuse® Pellets PP GF30: These high-performance polypropylene (PP) micro pellets are reinforced with 30% glass fiber (GF30), ensuring high stiffness, high heat resistance, and enhanced UV stabilization.

Easy-To-Print for Demanding Applications

Designed for demanding applications like tools, molds, and holders, as well as environments sensitive to moisture or chemicals, they deliver exceptional performance. Ideal for both desktop and industrial 3D printing, these easy-to-print micro pellets guarantee outstanding surface quality while preserving the inherent properties of homopolymer PP.

Optical Excellence and Stability:

With consistent extrusion flow and a high degree of filling, Ultrafuse® Pellets PP GF30 achieves detailed and homogeneous surface qualities without compromising speed or warpage, making it perfect for both beginners and professionals in prototyping or series production.

Key Benefits:

- **Excellent chemical resistance:** Preserving the Inherent Properties of Homopolymer PP
- **High Stiffness:** Reinforced with 30% Glass Fiber
- **Low density:** PP has naturally a low density
- **Low moisture uptake:** The wax-like base structure of PP polymers has natural water-repellency
- **Excellent for demanding applications:** High heat resistance, protection from moisture absorption
- **Improved UV resistance:** UV stabilizers ensure long service life of parts, even outdoors.

QUICK FACTS

Material:

- Premium Glass Fiber Reinforced Micro-Pellets
- Color: Black

Offer:

- Pellet size: Micro Pellets
- Shape: Cylindrical
- Diameter & Length: ~2mm
- 20 kg in a box with 2*10 kg bags



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Ultrafuse® Pellets PP GF30

Product Line:

Ultrafuse® Micro Pellets –
Engineering Line

Technology:

Fused Granulate Fabrication (FGF)

Key Benefits:



Suited for:



This information and values are presented as guidance only and based on Forward AM's knowledge and experience. It is believed to be accurate, however all guarantees are explicitly denied. This document was updated July 2024.



TECHNICAL SPECIFICATIONS

Mechanical properties*

Standard

Value XY / XZ / ZX

HDT (0.45 MPa) (°C)	ISO 75-2	127,0
Tensile Strength (MPa)	ISO 527	41,7 / - / 15,9
Elongation at Break (%)	ISO 527	4,4 / - / 0,8
Young's Modulus (MPa)	ISO 527	2628 / - / 2242
Impact Strength Izod (notched) (kJ/m²)	ISO 180	5,6 / 6,2 / 1,4
Impact Strength Izod (unnotched) (kJ/m²)	ISO 180	20,5 / 2,4 / 2,6

*measured on respective filament

PRINT SETTINGS

Drying Recommendations

Temperature	Min. 55 °C; Max. 70 °C (prevent sticking)
Time	4 - 16 h
Condition	<1000 ppm

Please note: To ensure constant material properties the material should always be kept dry.

Recommended Extrusion Parameters

Zone 1 Temperature	210 ± 10 °C
Zone 2 Temperature	225 ± 10 °C
Zone 3 Temperature	235 ± 10 °C
Nozzle Temperature	250 ± 10 °C
Extrudate Temperature	80 ± 10 °C