



# Ultrafuse® Pellets PC GF30

High-Strength Micro Pellets:

Low-warping, Flame Retardant, High-Temperature Resistant Extrusions

Launch Package  
08-07-2024



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# Product Introduction: Ultrafuse® Pellets PC GF30



# Product overview

## Introduction

### ■ Easy to print pellets for Large Scale AM and entry level machines, Ultrafuse® Pellets PC GF30

- ▶ Ultrafuse® Pellets PC GF30 are engineered micro pellets of polycarbonate reinforced with 30% glass fibers, designed specifically for 3D printing applications.
- ▶ These micro pellets are ideal for both industrial and desktop printers, offering ease of extrusion, exceptional consistency, and high temperature stability. The 30% glass fiber composition ensures remarkable rigidity and excellent mechanical properties, making it well-suited for demanding applications.
- ▶ With superior strength, good temperature resistance, and UL 94 V0 flame retardancy certification, Ultrafuse® Pellets PC GF30 excel in various industrial settings.
- ▶ Additionally, they exhibit resilience to UV light exposure and boast high stiffness, heat deflection temperature, and dimensional stability, alongside very low moisture absorption.

# Product overview

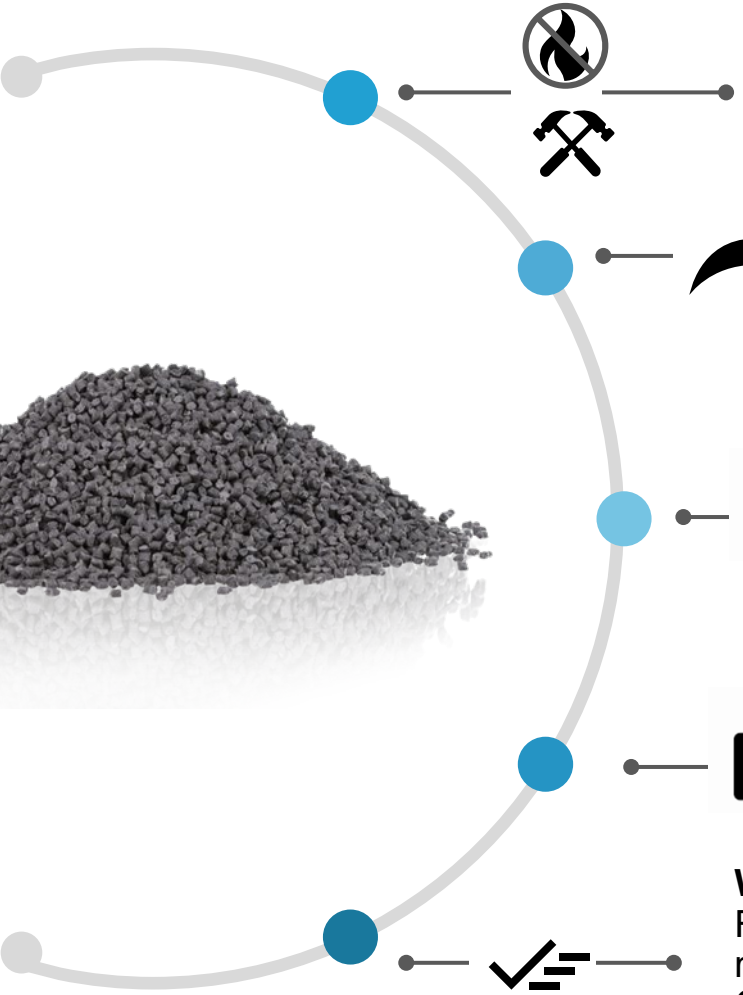
## Key features

### ■ **Ultrafuse® Pellets PC GF30**

- ▶ **Flame retardancy V0 according to UL 94 (@1.5mm and 3.0mm):** PC with the right choice of flame retardant has outstanding flame-retardant properties
- ▶ **Railway classification according to EN 45545-2 :** Developed and tested to be used also in the demanding field of transportation
- ▶ **Resistance to UV light exposure:** Extended range of applications thanks to UV stabilization
- ▶ **Excellent temperature resistance:** Amorphous PC demonstrates high heat deflection temperature and temperature stability. Thanks to the high glass fiber content, the material retains its rigidity even at high temperatures.
- ▶ **High stiffness and strength:** With a high loading of special glass fiber filling this material shows exceptional stiffness and strength

# Ultrafuse® Pellets PC GF30

## Messaging: Claims



**High Performance and Durability:** Enhanced with 30% glass fiber and UV stabilization, Ultrafuse® Pellets PC GF30 offers exceptional stiffness, superior heat resistance, and verified flame retardancy, ensuring robust performance in challenging conditions.

**Simplified Polycarbonate Printing:** Ultrafuse® Pellets PC GF30 combines the advantages of polycarbonate with user-friendly processing. Specially developed as system-friendly micro pellets, they work smoothly with virtually all extruder systems, ensuring easy and consistent feeding for excellent extrusion results even with small screw diameters.

**Consistent and Efficient Extrusion:** Engineered with micro pellet dimensions for seamless compatibility with most extruder systems, Ultrafuse® PC GF30 ensures easy, consistent feeding and excellent extrusion results, ideal for both desktop and professional 3D printing

**Superior Surface Finish:** Ultrafuse® Pellets PC GF30 delivers smooth and uniform surfaces without compromising speed or experiencing warpage, ensuring high-quality prints.

**Wide-Ranging Industrial Applicability:** Featuring outstanding flame retardancy (V0 UL 94) and railway classification (EN 45545-2), Ultrafuse® PC GF30 are ideal for automotive, railway, aerospace, and industrial applications, providing reliable high-quality results.

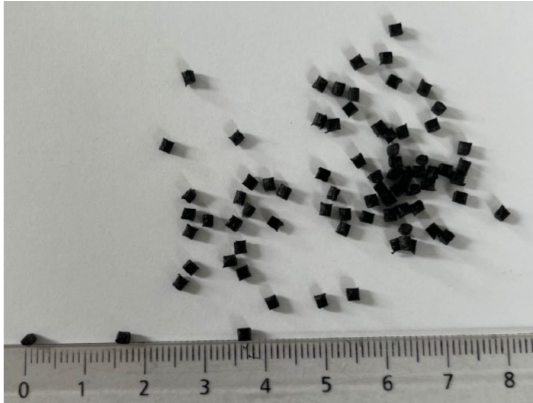
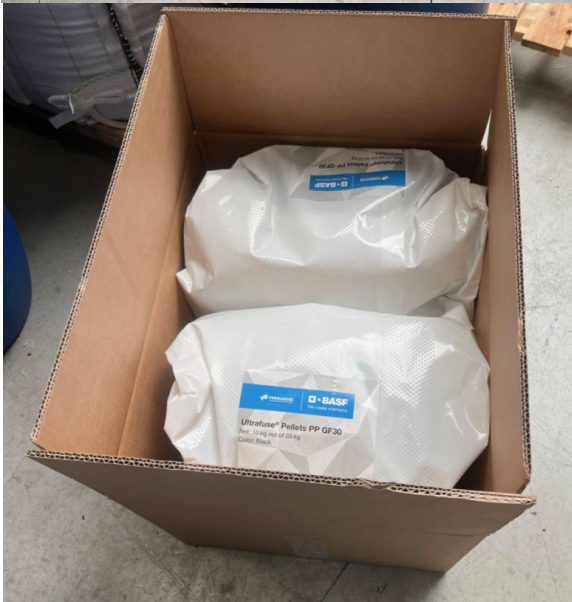


# Product overview

## Product configuration offer

- **Engineering-grade Micro Pellets**
- **Ultrafuse® Pellets PC GF30**
  - ▶ **Weights:** 20 kg in a box with 2\*10 kg bags
  - ▶ **Diameters:** 2mm
  - ▶ **Length:** 2mm
  - ▶ **Shape:** Cylindrical
  - ▶ **Colors:** Dark Grey

BI number	ART no. Cobalt	ART no. SAP B1	BI name/mat. Description	Portfolio	Category
1010784	50849614	Plts-PCGF-99591m0020	Ultrafuse® Pellets PC GF30 2x10KG	AES	Pellets



# Ultrafuse® Pellets PC GF30

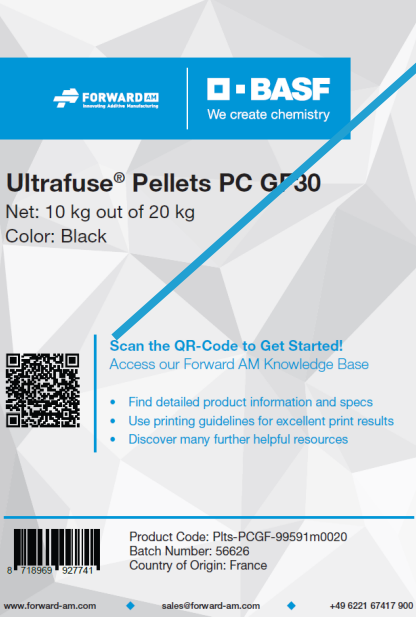
## QR-Code

Easy to use feature too access up-to-date product information seamlessly:

- Technical data sheet
- Processing Parameters
- Links to material landing page, print profiles, ...
- Survey, to collect end-user feedback



Scan the product [QR code](#)



Access our **Technical Data Sheet** for 3D printer settings and material properties.

[Technical Data Sheet](#)

Access your **product quality assurance report** through our Certificate of Analysis (CoA) database and enter the unique five-digit batch number, which is located on the spool label.

[CoA Database](#)

Access our **material landing page** for: Print Profiles, Product Leaflet, Technical Data Sheet, Safety Data Sheet, Use Cases and more (Specific content available in multiple languages).

[Material Landing Page](#)

Your feedback matters, take our **2 minute survey** now and help us to drive innovation and advance our next product.

[Give your Feedback!](#)






# Ultrafuse® Pellets PC GF30

The image shows a product information card for Ultrafuse® Pellets PC GF30. The card has a blue header with the FORWARD AM logo (Innovating Additive Manufacturing) and the BASF logo (We create chemistry). Below the header, the product name 'Ultrafuse® Pellets PC GF30' is displayed in bold, followed by 'Net: 10 kg out of 20 kg' and 'Color: Black'. A QR code is located on the left side, with the text 'Scan the QR-Code to Get Started! Access our Forward AM Knowledge Base' to its right. Below the QR code, there is a bulleted list of three items: 'Find detailed product information and specs', 'Use printing guidelines for excellent print results', and 'Discover many further helpful resources'. At the bottom of the card, there is a barcode with the number '8 718969 927741' and the following text: 'Product Code: Plts-PCGF-99591m0020', 'Batch Number: 56626', and 'Country of Origin: France'. The footer of the card contains the website 'www.forward-am.com', the email 'sales@forward-am.com', and the phone number '+49 6221 67417 900'.


**FORWARD AM**  
Innovating Additive Manufacturing

**BASF**  
We create chemistry

**Ultrafuse® Pellets PC GF30**  
Net: 10 kg out of 20 kg  
Color: Black

 Scan the QR-Code to Get Started!  
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# Ultrafuse® Pellets PC GF30

## Processing parameters

### Drying Recommendations

Temperature	100 °C
Time	8 - 10 h
Condition	<300 ppm

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

### Recommended Extrusion Parameters

Zone 1 Temperature	250 ± 20 °C
Zone 2 Temperature	265 ± 20 °C
Zone 3 Temperature	285 ± 20 °C
Nozzle Temperature	300 ± 20 °C
Bed Temperature	90 ± 10 °C

# Positioning, Target Audience and Channels:



# Ultrafuse® Pellets PC GF30

## Positioning

- Ultrafuse® Pellets PC GF30 addresses the challenges of printing with polycarbonate, such as high extrusion temperatures and shrinkage. The tailored formulation and micro pellet dimensions make this material easy to print with consistent extrusion performance, low warping, and no compromises in material properties.
  - ▶ Its micro pellet dimensions allow easy and consistent feeding into almost all extruder openings and deliver excellent extrusion results even with small screw diameters. Ideal for desktop and professional printing systems.
  - ▶ The consistent extrusion flow and the high degree of filling of our pellets make it possible to achieve detailed and homogeneous surface qualities without having to compromise on speed or warpage.
  - ▶ The certified flame-retardant properties enable the use of printed components even in the most demanding industrial segments like automotive and transportation.



# Ultrafuse® Pellets PC GF30

## Target audience

- **Professionals:** Engineers, operators, designers, and product developers requiring functional prototypes, spare or serial parts, from detailed to large scale printed parts with flame-retardant requirements.
- **Industries:** Automotive, Railway, aerospace, industrial installations, electronics, tools and more, where easy to print and low warp mechanical robustness and flame protection are demanded.
- **Industries:** Water treatment, waste handling, production machinery, automotive, consumer electronics, and more, where easy to print and low warp durable PP parts are crucial.

## ■ Target Applications:

- ▶ **Spare parts**
  - Railway Industry
  - Automotive Industry
- ▶ **Installations in industrial environments**
- ▶ **High temperature tooling**
- ▶ **Manufacturing aids**
- ▶ **Molds of any kind, requiring:**
  - high temperature resistance &
  - moisture stability



# Messaging & Content



# Ultrafuse® Pellets PC GF30

## Messaging: Tagline and Introduction

- **Ultrafuse® Pellets PC GF30: High-Strength Micro Pellets for Low-warping, Flame Retardant, High-Temperature Resistant Extrusions**
- Introducing Ultrafuse® Pellets PC GF30: These advanced polycarbonate (PC) micro pellets, reinforced with 30% glass fiber, deliver unmatched stiffness, superior temperature stability, and certified flame retardancy (V0).
  - ▶ Perfect for challenging applications such as tools, molds, and high-temperature parts, they excel in both desktop and industrial 3D printing environments. These micro pellets ensure outstanding surface quality while preserving the core properties of polycarbonate.



# Ultrafuse® Pellets PC GF30

## Messaging: Detailed Description

- **Ultrafuse® Pellets PC GF30: Premium Glass Fiber Reinforced Micro-Pellets for Excellent Extrusion and Surface Quality in Demanding Applications.**
  - ▶ Ultrafuse® PC GF30 pellets work smoothly with virtually all extruder systems, thanks to their micro pellet dimensions that allow easy and consistent feeding.
  - ▶ Ideal for both desktop and industrial 3D printing, these easy-to-print pellets guarantee outstanding surface quality while preserving the inherent properties of polycarbonates.
  - ▶ With consistent extrusion flow and a high degree of filling, Ultrafuse® Pellets PC 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.

# Ultrafuse® Pellets PC GF30

## Content

### ■ Partner Resource Center Content

#### ▶ Material and document overview:

- Launch Package
- Material Onepager
- Product Images
- Application Images
- TDS: EN
- MSDS: Ultrafuse® Pellets PC GF30 EN, DE;

### ■ Website (Available Mid of July):

- ▶ Product Line Page
- ▶ Product Page
- ▶ Educational Material: “Blog-Article: Leveraging Micro Pellets for Cost-Effective 3D Printing”



# Disclaimer

- All information contained in this document is given in good faith and is based on sources believed to be reliable and accurate at the date of publication of this document. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. This content is exclusively for our customers and respective competent authorities. It is not intended for publication either in printed or electronic form (e.g. via Internet) by others. Thus, neither partial nor full publication is allowed without written permission.
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- The displayed MSRP pricing displayed is for reference only and may vary depending on the region and currency. The MSRP pricing is subject to change without prior notice. The latest and most accurate pricing for the Ultrafuse Pellets PC GF30 and other products are available on request by contacting [sales@forward-am.com](mailto:sales@forward-am.com).



# Ultrafuse® Pellets

## Contact Details

At Forward AM we strive to provide you with the best service possible.

If you have **questions about our materials, technologies or services**, or would like to **request an expert consultation**, we will be delighted to hear from you!

**Any questions left?  
Let's talk!**



[www.forward-am.com](http://www.forward-am.com)



[sales@forward-am.com](mailto:sales@forward-am.com)



**+49 6221 67417-900**



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 - **BASF**

We create chemistry



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