

TECHNICAL DATA SHEET

ReForm rPP GF10 UV

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ReForm rPP GF10 UV – Recycled High-Performance Glass Fiber Reinforced Polypropylene for LFAM

ReForm rPP GF10 UV is a high-performance recycled polypropylene (rPP) composite reinforced with 10% glass fibers. It is specifically engineered for Large Format Additive Manufacturing (LFAM) applications. This advanced 3D printing material combines lightweight performance with enhanced stiffness, excellent dimensional stability, and reduced warpage. This makes ReForm rPP GF10 UV an ideal solution for large-format additive manufacturing (LFAM) applications where weight control and structural integrity are critical.

With integrated UV stabilization, ReForm rPP GF10 UV is designed for both indoor and outdoor LFAM applications. It delivers long-term durability under sunlight exposure and challenging environmental conditions. This ensures reliable performance in the most demanding LFAM applications.

Developed using FormFutura's proprietary low-warp technology, ReForm rPP GF10 UV offers excellent processability compared to alternative materials on the market. The optimized 10% glass fiber content provides improved impact resistance and balanced mechanical strength while maintaining smooth extrusion behavior and superb interlayer adhesion. The result is consistent print quality, reduced shrinkage, and dependable large-part production.

ReForm rPP GF10 UV is a versatile and cost-efficient LFAM material for manufacturers seeking a durable, UV-resistant, low-moisture-absorbing solution for structural and semi-structural components. It is particularly suitable for applications requiring lightweight design, chemical resistance, and outdoor performance at scale.

Key Features of ReForm rPP GF10 UV Pellets for LFAM

- Recycled, high-performance PP composite truly optimized for LFAM with minimized warpage;
- 10% chemically coupled glass fiber reinforcement for balanced stiffness and impact strength;
- Maximum UV resistance for prolonged outdoor exposure;
- High Chemical Resistance and Strong Heat Resistance;
- European-Made Quality Compound.

Suitable Applications of ReForm rPP GF10 UV Pellets for LFAM

- **Industrial Equipment & Machine Components** – Manufacturing large housings, covers, guards, ducts, lightweight structural panels, and functional enclosures;
- **Outdoor & Infrastructure Parts** – 3D printing utility enclosures, electrical cabinets, agricultural components, outdoor furniture parts, and protective casings;
- **Marine & Water-Adjacent Applications** – Printing boat components, dock accessories, floating elements, buoys, and protective covers;
- **Construction & Building Systems** – Producing temporary structures, ventilation systems, protective panels, and modular building elements;
- **Automotive & Transportation** – 3D printing exterior body panels (non-Class A), battery housings, underbody shields, fairings, transport covers, and lightweight enclosures.

Material properties	Typical value	Test Method
MFI (230°C, 2.16kg)	5,5 g/10min	ISO 1133
Density (23°C)	0,95 g/cm ³	ISO 1183
Moisture content	<0,2%	

Mechanical properti	Typical value	Test Method
Tensile strength (5mm/min)	30 MPa	ISO 527
Elongation at brake (5mm/min)	6,5%	ISO 527
Tensile E-modulus (1mm/min)	2100 MPa	ISO 527
Charpy notched impact strength (23°C)	32 kJ/m ²	ISO 179

Thermal properties	Typical value	Test Method
HDT A	104 °C	ISO 75
HDT B	115 °C	ISO 75
Melt temperature	190 - 250 °C	-



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Processing Recommendations for ReForm rPP GF10 UV Pellets for LFAM

Pre-Drying: 3-4hrs at ~60-70 °C (<100ppm)

For optimal 3D printing results it is recommended to pre-dry ReForm rPP GF10 UV pellets to a moisture content below 100 ppm using a dryer with dehumidifier.

Zone 1: 210 °C ±20 °C

Zone 2: 220 °C ±20 °C

Zone 3: 230°C ±20 °C

Max temp: 250 °C

Die temp: 230°C ±20 °C

Typical extrusion settings may require optimization based on hardware used.

Storage and Handling Guidelines for ReForm rPP GF10 UV Pellets for LFAM

ReForm rPP GF10 UV is considered an inert and safe material under standard storage conditions, presenting no significant hazards. To ensure maximum quality, stability, and long-term performance, proper storage practices are recommended.

For best results:

- Store in a tightly sealed container to protect against moisture absorption.
- Keep in a dry, cool, and well-ventilated environment.
- Avoid direct exposure to sunlight or intense artificial light to preserve material integrity.

By following these guidelines, ReForm rPP GF10 UV will maintain its reliability and print performance over time.

Product export information

HS code: 39021000

Description: Polypropylene (PP) resin in primary form

Origin: European Union

Disclaimer

The product and technical data provided in this datasheet are, to the best of FormFutura B.V.'s knowledge, accurate at the time of publication and are intended solely for reference and comparative purposes. Actual results may vary depending on printing conditions, model design, environmental factors, and other variables. The values presented are typical, non-binding, and should not be interpreted as guaranteed specifications.

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