

TECHNICAL DATA SHEET

ReForm rPLA

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ReForm rPLA – Sustainable High-Performance Recycled PLA Pellets for LFAM

ReForm rPLA is a premium bio-based, post-industrial recycled PLA compound, which is optimized for large format 3D printing. This material reflects a strong commitment to circular manufacturing and environmental responsibility. It is not only 100% recycled, it is also 100% recyclable and 100% industrially compostable.

Designed with an amorphous structure and high viscosity, ReForm rPLA delivers exceptional dimensional stability, making it ideal for Large Format Additive Manufacturing. It offers outstanding printability and produces scratch resistant parts with high surface quality.

ReForm rPLA is made from food-contact compliant raw materials and is compatible with both FDM/FFF and LFAM technologies.

Key Features of ReForm rPLA Pellets for LFAM

- **Food Contact Compliant** – manufactured with certified raw materials for safe and reliable applications.
- **High Dimensional Stability & Scratch Resistance** – ensures precise, durable, and long-lasting 3D-printed parts.
- **Ideal for Large-Scale Prints** – optimized for consistent performance in Large-Format Additive Manufacturing (LFAM).
- **100% Recycled & 100% Recyclable** – designed to support a fully circular and sustainable production cycle.
- **Industrially Compostable** – meets strict environmental standards for responsible end-of-life disposal.

Suitable Applications of ReForm rPLA Pellets for LFAM

- **Prototyping & Visual Models** – perfect for creating accurate design concepts and validation samples.
- **Decorative & Artistic Objects** – ideal for sustainable, high-quality artistic and creative 3D prints.
- **Customizable Parts** – supports tailored designs for unique and personalized applications.
- **Functional Prototypes** – delivers the strength and precision required for testing and iteration.
- **Cost-Efficient Part Production** – enables affordable manufacturing without compromising quality.

Material properties

MFI (190°C, 2.16kg)

Typical value

4 g/10min

Test Method

ISO 1133-A

Density

1,24 g/cm³

DSC

Mechanical properties

Tensile strength

42 MPa

ISO-527

Tensile modulus

3350 MPa

ISO-527

Elongation at break

4,7%

ISO-527

Impact strength (Charpy, notched)

4,8 kJ/m²

ISO-179-1eA

Thermal properties

HDT-B

54 °C

ISO 75

Glass transition temperature

60 °C

DSC

Melting Point

155 °C

DSC

Processing Recommendations for ReForm rPLA Pellets for LFAM

Pre-Drying: 4-6hrs at 85 °C (<100ppm)

For optimal 3D printing results it is recommended to pre-dry ReForm rPLA pellets to a moisture content below 100 ppm.

Zone 1: 185°C ±5 °C

Zone 2: 195°C ±5 °C

Zone 3: 205°C ±5 °C

Max temp: 210 °C

Die temp: 200°C ±10 °C

Typical extrusion settings may require optimization based on hardware used.



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Storage and Handling Guidelines for ReForm rPLA Pellets for LFAM

ReForm rPLA is 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 rPLA will maintain its reliability and print performance over time.

Product export information

HS code: 39077000

Description: Recycled PLA 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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