RESINIFY – TECHNICAL DATA SHEET

Product Name: GlassFill Pro **RT Code:** RT-CP6000 **Category:** Engineering Resin – Composite / Reinforced

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1. Product Description

GlassFill Pro is a high-strength, glass-fiber–reinforced engineering resin designed for applications requiring maximum stiffness, dimensional accuracy, and superior heat resistance. The addition of micro glass fibers increases flexural modulus and reduces deformation, making the material ideal for molds, fixtures, enclosures, and functional mechanical components. Its low shrinkage and stable curing behavior ensure reliable printing on LCD, mSLA, and DLP printers.

2. Key Features & Benefits

- High rigidity and flexural modulus due to glass reinforcement
- Excellent dimensional stability and low shrinkage
- Improved heat resistance vs. standard rigid resins
- Smooth, matte composite finish
- Strong mechanical performance for functional applications
- Ideal for structural and load-bearing parts

3. Mechanical & Thermal Properties

Property	Value
Tensile Strength	60–75 MPa
Tensile Modulus	2,800–3,500 MPa
Elongation at Break	3–5%
Flexural Strength	110–130 MPa

Property	Value
Flexural Modulus	3,500–4,500 MPa
Impact Strength	20–32 J/m
HDT @ 0.45 MPa	75–90°C
Shore Hardness	88–90D
Notched Izod	18–26 J/m
Water Absorption	<0.30%
Shrinkage	0.25–0.55%
Density	1.32–1.42 g/cm^3
Viscosity	900–1300 cP

Note: Values vary depending on curing conditions and geometry.

4. Recommended 3D Printing Parameters

Parameter	Setting
Printer Type	LCD / mSLA / DLP
Wavelength	385–405 nm
Layer Thickness	50–100 µm
Normal Layer Exposure	3.0–4.0 sec

Parameter	Setting
Bottom Layers	6–10
Bottom Exposure	45–65 sec
Lift Speed	Medium
Rest Time	Recommended for tall or solid parts

Note: Glass-filled materials are heavier; ensure proper support structures are used.

5. Post-Processing

1. **Wash**: Wash for 3–5 minutes in IPA or a dedicated resin cleaner.
2. **Dry**: Dry parts thoroughly before curing.
3. **Cure**: UV post-cure for 20–30 minutes.
    - For maximum heat resistance: Perform a post-cure bake at **60–70°C for 10–20 minutes**.

6. Applications

- Injection mold masters
- High-rigidity functional components, jigs, fixtures, and tooling
- Mechanical housings, covers, and load-bearing brackets
- High-detail industrial prototypes

7. Storage & Handling

- Store in a sealed container between **10–30°C**, away from direct light.
- Mix gently before use to disperse glass fibers evenly.
- **Shelf Life:** 12 months unopened from the date of manufacture.

8. Compliance

- RoHS

- REACH
- Tested in accordance with ASTM D638, D790, D256.

This document is subject to change. For the latest version, please contact Resinify Technology LLC. **RESINIFY – Innovating Additive Manufacturing Materials**