

TECHNICAL DATA SHEET

ReForm rTPU 90A

Date of issue: 29-09-2025 / Date of update: 29-09-2025



ReForm rTPU 90A Filament – Semi-Flexible & Sustainable TPU Filament for 3D Printing

ReForm rTPU 90A is our semi-flexible rTPU filament in our ReForm rTPU product line. This recycled TPU filament strikes a balance between flexibility, elasticity, and dimensional accuracy during 3D printing. It is engineered for 3D printing general-purpose flexible parts where toughness and wear resistance are needed.

ReForm rTPU 90A is ideal for producing shock-absorbing, abrasion-resistant, and semi-flexible 3D printed parts. Even under continuous mechanical stress and long-term use, your prints will remain strong, flexible, and reliable.

The Sustainable Choice in TPU 3D Printing Filaments

ReForm rTPU 90A is manufactured using almost 100% post-industrial recycled TPU, sourced responsibly from European chemical industries. By reclaiming overproduction, off-grade materials, and production waste, and enhancing them with tailored additives, we deliver a high-performance recycled TPU filament optimized for 3D printing applications.

This makes ReForm rTPU 90A the eco-friendly alternative to virgin TPU filaments—delivering the same premium quality while reducing environmental impact.

Important key features of ReForm rTPU 90A

- Made with nearly 100% recycled TPU from certified and traceable European sources.
- Semi-flexible and elastic with a shore hardness of 90A.
- Superior shock absorption and vibration damping.
- Durable with excellent abrasion- and tear resistance.
- Outstanding mechanical performance for demanding applications.

Suitable applications for ReForm rTPU 90A

- **Wearable parts** – phone cases, watch straps, insoles, orthopedic support.
- **Protective components** – bumpers, gaskets, vibration dampers, shock absorbers, seals.
- **Industrial prototypes and functional parts** – flexible hinges, grips, tubing, connectors.
- **Automotive applications** – Dust covers, bellows, flexible mounts, cable management components.
- **Sports & lifestyle equipment** – Wheels for skateboards/rollers, custom grips, sporting goods.

Recommended print settings for ReForm rTPU 90A

Nozzle temp: ± 220 - 250°C

Heat bed: ± 60 - 80°C

Fan speed: ± 30 - 100%

Print speed: ± 20 - 60 mm/s

Nozzle: ≥ 0.15mm

Buildplate adhesion: EasyFix Nr. I

Drying: 24 hours @ ~50-70 °C

Drybox: Yes

Enclosure: Not necessary

Experience level: Intermediate

Material properties

Specific Gravity (23°C)

Typical value

1,21 g/cm³

Test Method

ISO 1183-1

Mechanical properties

Tensile strength

29,5 MPa

ASTM D638

Tear strength

52 N/mm

ISO 34-1

Elongation at break

355%

DIN 53504-S2

Shore A hardness

90A

ISO 7619-1

Thermal properties

Heat resistance

74 °C

DSC

Melting Point

165 °C

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Buildplate adhesion

For optimal buildplate adhesion we recommend to use our EasyFix Adhesive – Nr. I.

Storage and handling

Filament should be stored at room temperature in a dry and dark place with humidity below 15%. Recommended storage temperature is ca. 18-25°C (64.4 -77.0°F). Keep out of moisture, sunlight and direct heat. When stored properly, product has a shelf life of 24 months. To obtain the best parameters of the printed object, it is recommended to dry the material prior to usage and to 3D print it directly from a dry box.

Product export information

HS Code	Description	Origin
39169090	Monofilament for 3D printing	European Union

Packaging & Logistics Information

Material	Spool weight	Spools per master box	Spools per EURO pallet
ReForm rTPU 90A	1,000 g (1 kg)	10	400
ReForm rTPU 90A	2,300 g (2.3 kg)	5	120
ReForm rTPU 90A	4,500 g (4.5 kg)	1	90
ReForm rTPU 90A	8,000 g (8 kg)	1	60

Disclaimer

The product and technical data provided in this datasheet are correct to the best of FormFutura BV's knowledge and are intended solely for reference and comparison purposes. Actual values may vary depending on printing conditions, model complexity, environmental factors, and other variables. Typical values are indicative only and do not constitute binding specifications.

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