



SOFT TOUGH**RUBBER™**

The World's Softest
Tough Additive
Manufacturing Photopolymer

What if you could rapidly print soft, flexible parts? What if you could rapidly print soft, flexible parts with functional end performance, complex geometry, and fine feature sizes?

Designed for functional prototypes of audio ear buds, wearable electronics, and anatomical medical models Soft ToughRubber (STR) delivers silicone feel and mechanical properties with the resolution and surface finish that DLP® printing provides.

Soft ToughRubber is the newest product in the ToughRubber family, a class of one-part, one-pot, rapid curing photopolymer resins with high-throughput print speeds. With Adaptive3D Technologies materials, you can create stronger, tougher, and more-strainable parts that have high accuracy, isotropic properties, and great printability.

ToughRubber™ opens up advantages for 3D printing that have not been available before the launch of this product family, which makes ToughRubber™ materials the premium flexible AM materials on the market.

Key Features & Benefits

- Soft AM photopolymer (Shore A 28.6)
- Silicone/TPE feel
- High strain, tensile strength, and toughness
- Large part size, high resolution, smooth surface, and black color
- One-part polymer resin system

Applications & Use Cases

- Functional Prototypes
- Audio ear pieces
- Wearable electronics
- High-quality 3D prints out of soft, flexible materials
- Printing tough and flexible parts that are usable and functional

Soft ToughRubber™

STR-TD-385-B

| TYPE | STANDARD | PARAMETER | UNIT | VALUE |
|--------|--------------------------|---------------------------|-------------------|-------|
| Liquid | ASTM D2196 | Viscosity | cP | 560 |
| Liquid | ASTM D792 | Liquid Density | g/mL | 1.02 |
| Print | ASTM D2240 | Hardness - 0 s | Shore A | 36 |
| Print | ASTM D2240 | Hardness - 10 s | Shore A | 24 |
| Print | ASTM D4065 | Glass Transition (DMA) | °C | -4 |
| Print | ASTM D4065 | Storage Modulus @ 25 C | MPa | 0.8 |
| Print | ASTM D638 Type V | Fracture Toughness | MJ/m ³ | 1.6 |
| Print | ASTM D638 Type V | Elongation at Break | % | 245 |
| Print | ASTM D638 Type V | Ultimate Tensile Strength | MPa | 1.5 |
| Print | ASTM D412 Method A Die C | Fracture Toughness | MJ/m ³ | 1.7 |
| Print | ASTM D412 Method A Die C | Elongation at Break | % | 255 |
| Print | ASTM D412 Method A Die C | Ultimate Tensile Strength | MPa | 1.4 |
| Print | ASTM D624 Die C | Tear Strength | kN/m | 5 |
| Print | ASTM D2632 | Bayshore Resilience | % | 4 |

