



***Lubrizol***

**3D Printing  
Solutions**

A NEW DIMENSION  
OF INNOVATION

***Lubrizol***

## 3D Printing Solutions

Lubrizol 3D Printing Solutions combines **comprehensive chemistry expertise**, **product and application testing** and **additive manufacturing capabilities** to transform our customers' visions into new innovations.



Since acquiring Avid Product Development in 2020, we have **expanded our expertise** and **combined capabilities** between both companies to deliver truly differentiated solutions that accelerate the growth of industries adopting 3D printing.





## 3D Printing Solutions

We are committed to being the partner that helps our customers solve 3D printing challenges. As an end-to-end solutions provider, our expertise includes, but is not limited to:

 **Polymer Material Development**

 **Design for Additive Manufacturing (DfAM)**

 **Prototyping**

 **Bridge Manufacturing**

 **On-Demand Production**

 **Post-Processing**

## Unlock The Benefits of 3D Printing

From prototyping to mass production, Lubrizol 3D Printing Solutions is equipped to be the collaborative partner your business needs. Featuring an extensive portfolio of materials for 3D printing, including our portfolio of ESTANE® 3D TPU which can be used in powder bed fusion or fused filament fabrication 3D technologies.

## 3D Printing Solutions for Powder Bed Fusion

Specially formulated for additive manufacturing and HP's Jet Fusion 4200 series 3D printing solution, ESTANE® 3D TPU M95A offers a broad range of production possibilities that require elasticity, increased elongation at break, abrasion resistance, compression and skin contact approval. These benefits make it a valuable material in industries from **automotive** and **footwear** to **consumer-focused parts**.

### Lubrizol ESTANE® 3D TPU Solutions for Powder Bed Fusion Applications:

#### Product Name

#### Hardness

#### ESTANE® 3D TPU M95A

Soft and flexible material with good abrasion resistance and skin contact approval.

# 95A



# Lubrizol ESTANE® 3D TPU Solutions for Fused Filament Fabrication Applications

Lubrizol 3D Printing Solutions offers an expansive portfolio of ESTANE® 3D thermoplastic polyurethane (TPU) for use in fused filament fabrication (FFF) 3D printers. Engineered to meet high-performance demands, our TPU can be used across a variety of applications, including everything from **footwear** to **industrial** and **healthcare** products.

## Lubrizol ESTANE® 3D TPU Solutions for Fused Filament Fabrication Applications:

### Product Name

### Hardness

#### ESTANE® 3D TPU F70D-065 TR UV PL

Flexible in low temperatures, while providing UV stability with high transparency.

# 70D

#### ESTANE® 3D TPU F98A-030 CR HC PL

Excellent mechanical properties, transparency, low warpage and shrinkage.

# 98A

#### ESTANE® 3D TPU F95A-030 BR ECO PL

Sustainable, plant-based solution with a broad printing window.



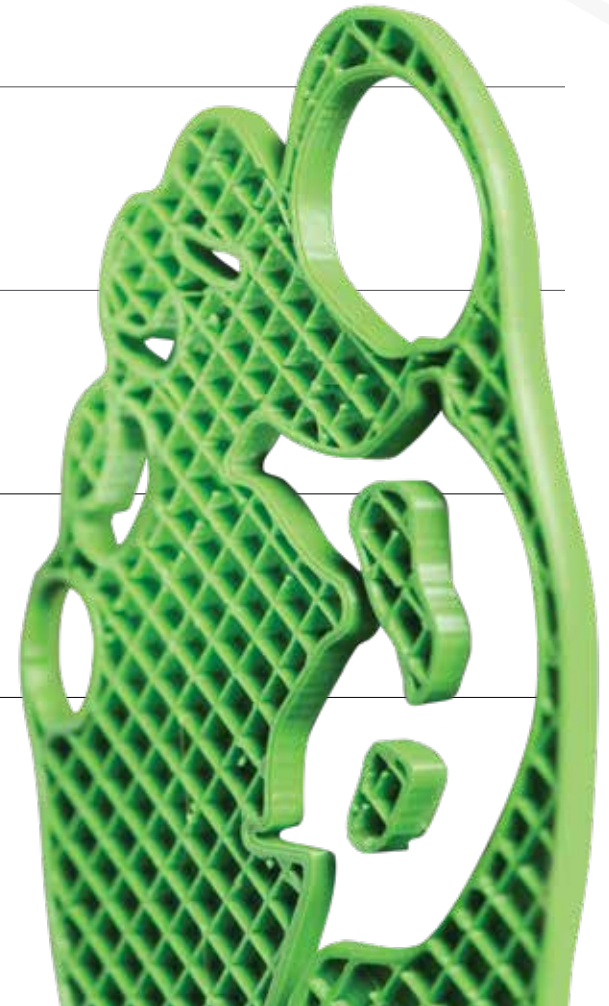
# 95A

#### ESTANE® 3D TPU F94A-055 OR HH PL\*

Durable with high heat temperature performance.

*\*This grade is also available under the Ultimaker Material Alliance program.*

# 94A



## colorFabb VarioShore TPU

colorFabb varioShore TPU is a high quality expanding TPU 3D printing filament. The active foaming technology can be used to achieve light weight parts, soft touch surfaces and lower Shore hardnesses.

## Foam Filament Grades - VarioShore TPU Black and VarioShore TPU Natural

Developed in co-operation with Lubrizol, varioShore TPU produced by colorFabb using their foaming technology, is available in different shore hardness, has reduced weight and density, and soft touch.

To achieve varioShore variable density and hardness, you must change the printing temperature of the material. The special filament is available in both black and natural colors.

To learn how Lubrizol 3D Printing Solutions can meet your business needs, visit:  
[www.lubrizol.com/3D-Printing](http://www.lubrizol.com/3D-Printing) or  
contact us: [3DPrinting@lubrizol.com](mailto:3DPrinting@lubrizol.com).

VarioShore™ mark is owned by colorFabb.

**Lubrizol**

**3D Printing Solutions**

THE SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.

© 2021 The Lubrizol Corporation. All rights reserved. All marks are the property of The Lubrizol Corporation.

21-1615

