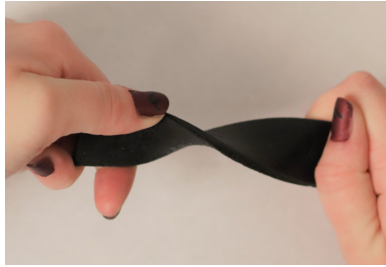
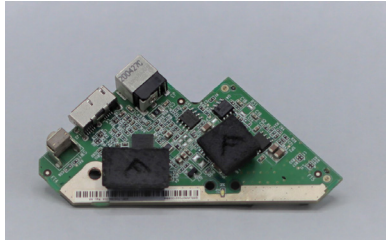


# ELASTOMERIC ESD 3D PRINTING

Fortify's SD-Elastomer is the first DLP elastomer that is ESD-safe. This soft, flexible material provides static dissipative properties for many applications.



Fortify's ESD-Elastomer is an ideal material for printing high resolution and bespoke PCB boots to provide sensitive components with mechanical and electrical protection



## SOFT ESD-SAFE 3D PRINTING

Fortify's ESD-Elastomer is the lowest durometer resin available in the 3D printing industry with electrostatically dissipative properties. Electrostatic Discharge (ESD) of small voltages is enough to destroy sensitive electrical components or ignite flammable vapor. With a Shore Hardness of 70A and surface resistivity of  $10^5 - 10^7 \Omega/\text{sq}$ , the ESD-Elastomer provides superior protection with the most scalable and highest resolution 3D printing platform. (DLP). Such resistivities are positioned to deliver ESD-Safe performance to industries with explosion and fire hazards, electrostatic protected areas, or environments requiring no electrostatic attraction of dust or bioparticles.

## FORTIFY'S FLUX DEVELOPER PLATFORM

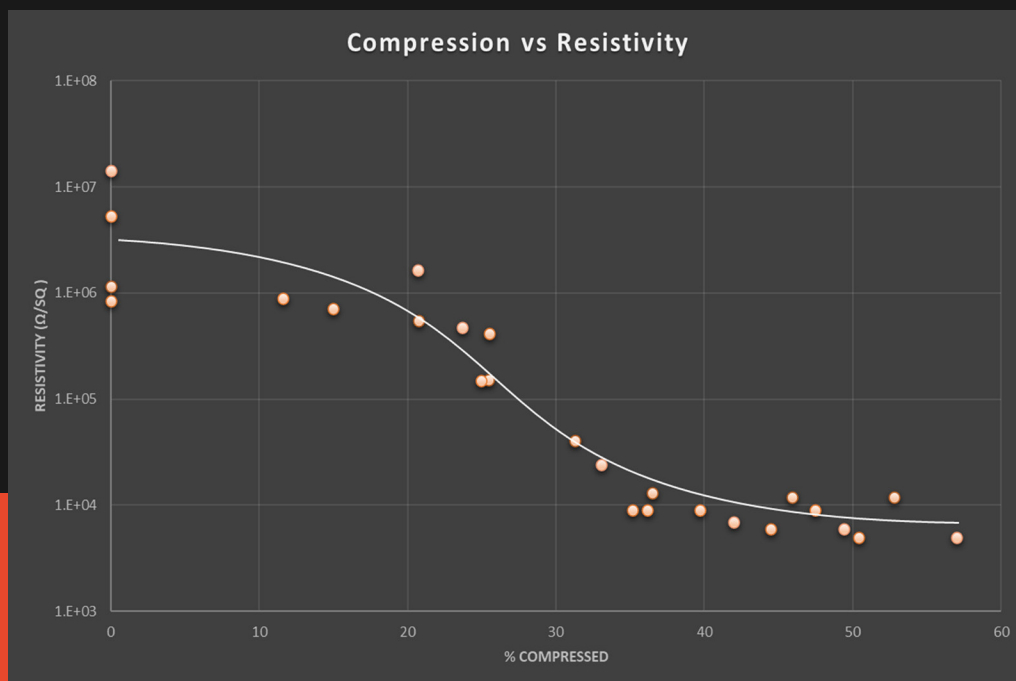
Fortify's ESD-Elastomer Resin was created using the Flux Developer platform that accelerates time to market for new materials formulations. This filled photo-resin can be printed on Fortify systems including the FLUX CORE printer. FLUX CORE is a DLP printing platform that enables high-throughput production of fine-featured parts from heavily loaded materials that are otherwise difficult to process. FLUX CORE comes with the Continuous Kinetic Mixing (CKM™) module that circulates, heats, and mixes loaded materials to maintain particle suspension and ensure even dispersion throughout the printing process. An even dispersion is critical to ensure that ESD-safe parts have consistent resistivities throughout.



# MATERIAL PROPERTIES

PHYSICAL PROPERTY	ESD-SAFE, HIGH-HDT RESIN	TEST METHOD
Electrical Resistivity ( $\Omega/\text{sq}$ )	$10^5 - 10^7$	ASTM D257*
Hardness Shore A	70	ASTM D2240
Tear Strength (kN/m)	24	ASTM D624
Ultimate Tensile Strength (MPa)	1.3	ASTM D412**
Young's Modulus (MPa)	10	ASTM D412**
Elongation at Break (%)	60	ASTM D412**

\*Tested uncompressed  
\*\* Type V tensile bars used



## SAMPLE APPLICATIONS

- ESD-safe custom tools, jigs and fixtures
- Trays for electronics handling / storage
- Soft grippers or contact points
- Seals, gaskets, boots, plugs
- Anti-static prototypes or end-use components like straps
- Bumpers and mounts
- Vibration absorbers

