



TECHNICAL DATA SHEET

FLEX MEDIUM ESD

1. DESCRIPTION

TPU Flex Medium ESD (electrostatic discharge) is a filament specially developed for the FDM/FFF process. Based on Polycaprolactone-Polyester, it combines the advantages of TPU with ESD protection. The material effectively dissipates static electricity and thus protects sensitive electronic devices from damage. Due to its low evaporation rate, FLEX Medium ESD is particularly suitable for automotive interior applications.

2. FEATURES

- Electrostatic resistance: 0,7 – 0,9 MΩ
- ESD-C Conductive
- Cleanroom compliant
- Very impact and break resistant
- Shore hardness A95
- Chemical resistance to oils, petrol, esters, ketones and chlorinated hydrocarbons

3. PROPERTIES

TEST	METHOD	UNIT	VALUE	PRINT SETTINGS
Specific Gravity (20 °C)	DIN 53.479	g/cm ³	1,20	Nozzle 220-250 °C
MFR (220°C/10.0 kg)	-	g/10min	50-70	Heatbed 50 °C
Shore Hardness	DIN 53.505	-	A95	Adhesive not required
Melting Range	KOFLER	°C	175-185	Speed max. 50 mm/s
Softening Range	KOFLER	°C	160-165	Cooling 60-100 %
Softening point	KOFLER	°C	150-170	Enclosed Space no
Hydrolysis Resistance	-	-	gut	Hardened Nozzle no
Chemical Resistance	-	-	gut	Max. Volumetric Speed 3,2 mm ³ /s
Tensile Strength	DIN 53.504	MPa	40	Recommended settings for printers with a 0.4mm Nozzle. Max. 50% layerheight. Optimal print settings may vary between different printers and also depend on environmental factors.
Elongation at Break	DIN 53.504	%	430	
Tear Resistance	DIN 53.515	kN/m	110	
Abrasion Loss	DIN 53.516	mm ³	28	
Electrical Conductivity	DIN EN 61340-2-3	MΩ	0,7 - 0,9	
Fogging value	DIN 75201 MB	mg	<1.5	

*Temperature resistance tested at a minimum wall thickness of 4 mm.

4. CERTIFICATIONS & ADDITIONAL INFORMATION



Certifications depend on colors in final product. More info in the additional information sheet.

5. STORAGE AND SHELF LIFE

Store in a dry room at room temperature (18-27°C / 65-80°F). Keep out of direct heat and sunlight. When stored correctly, this material has a shelf life of 2 years. Additional info in our regulatory, additional information and chemical resistance data sheets.