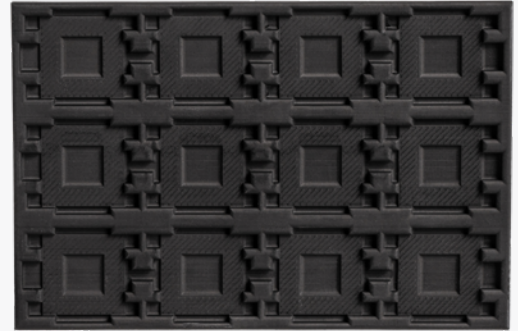


Advanced Photopolymer

ESD Black (Loctite 3380)



This material is a high-temperature resistant resin with electrostatic dissipating (ESD) capabilities and high stiffness. Pairing it with our HPS technology results in parts that are very smooth, have an impressive chemical resistance, and a high heat deflection temperature (HDT) of 374F (190C).

Applications

Jigs and fixtures of ESD-sensitive components; electronic manufacturing; tooling at high temperatures and low pressures.

Key Product Benefits

- High accuracy and fine detail printing
- Displays electrostatic dissipative properties (ESD)
- Excellent stiffness and versatility

Properties

Normal resolution: 0.004 in. (0.100mm)

Feature Sizes

Structural wall thickness: 0.040 in. (1mm)

Supported walls (ribs, bosses, etc.):

0.025 in. (0.6mm)

Positive features: 0.025 in. (0.6mm)

Negative features/holes: 0.025 in. (0.6mm)

Tolerances

Expected tolerances are +/- 0.010 in. (0.25mm) for the first inch plus 0.1% (0.001mm/mm) of nominal length. Note that tolerances may change depending on part geometry. Please request critical dimensions when you upload your part, and our applications engineers will quickly review and provide feedback.

Property	Test Method	Value
Color	—	Black
Surface Resistivity*	DIN EN61340-2-3	$10^4 - 10^{11} \Omega$
Volume Resistivity*	DIN EN61340-2-3	$4 \cdot 10^6 - 24 \cdot 10^9 \Omega \cdot \text{cm}$
Density in solid state*	ASTM D1475	1.2–1.25 g/cm ³
Water absorption (20 C, 50% relative humidity)*	ASTM D570	0.36%
E-module*	ASTM D638, test speed 5mm/min	2900 MPa
Tensile strength*	ASTM D638, test speed 5mm/min	45 MPa
Elongation at break*	ASTM D638, test speed 5mm/min	1.00%
Heat deflection temperature @ 0.46 MPa*	ASTM D648	356 F (180 C)
Heat deflection temperature @ 1.82 MPa*	ASTM D648	212 F (100 C)
Shore hardness*	ASTM D2240	86.5 D

*From supplier data sheet