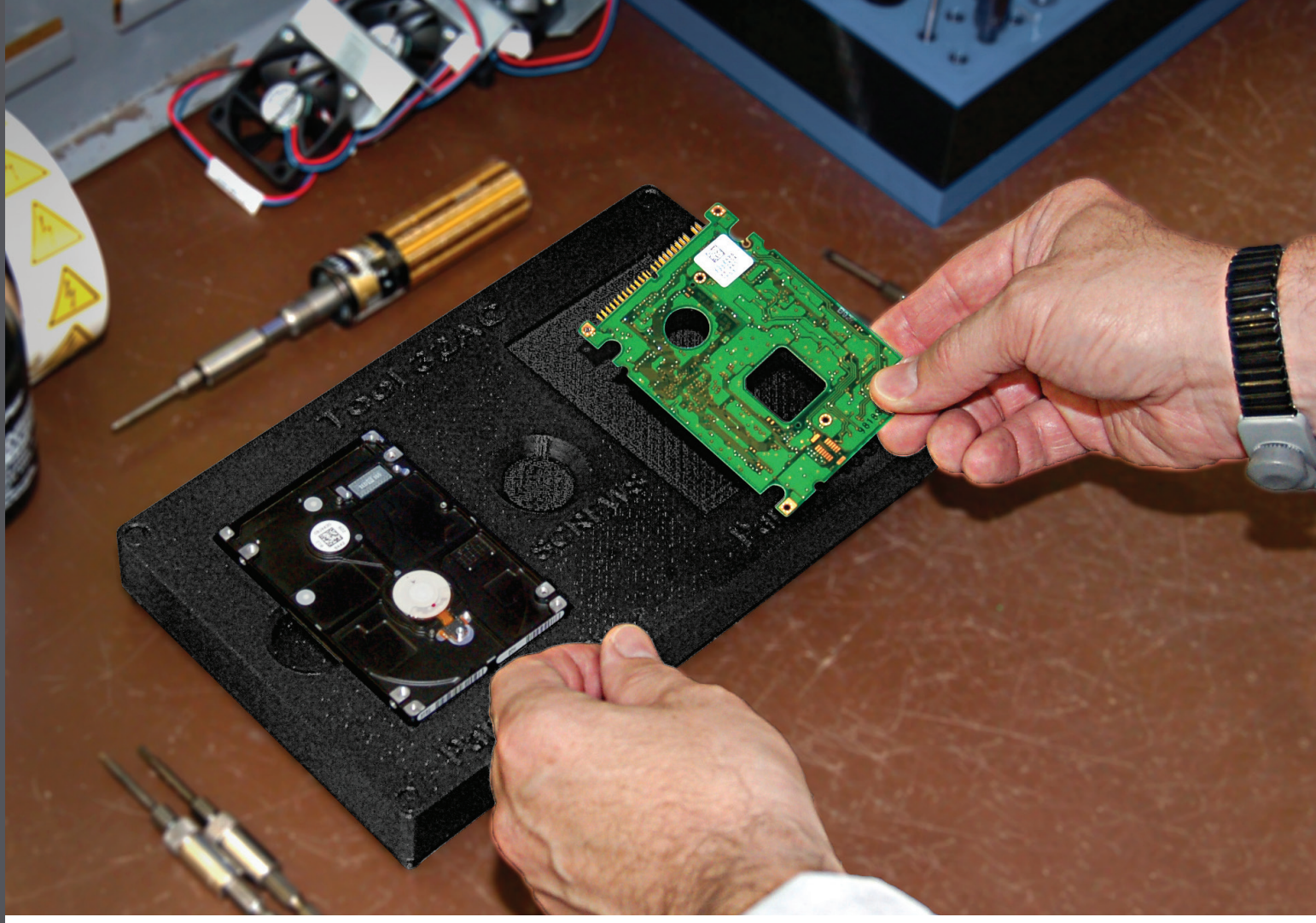

An assembly fixture for electronics made from ABS-ESD7.

Handling & Finishing
ABS-ESD7 Parts

Overview

ABS-ESD7 (static dissipative) material is one of the many great materials available for use with Fortus systems. This paper will walk you through the handling considerations for ABSESD7, including finishing, safety and packaging guidelines.

Finishing

The most common finishing techniques required for this material are bonding and smoothing. For smoothing, sanding is the recommended method. As with all FDM materials, standard sanding processes can be followed. Note that this material, unlike our standard ABS materials, cannot be smoothed using the finishing touch station. ABS-ESD7 can easily be bonded using typical methods including solvents, epoxies, hot-air welding, ultrasonic welding and super glue.

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Safety

Safety note: Sanding this material will release carbon particles; the finisher must wear an N100 respirator (eye protection is preferred).

A carbon additive has been added to the base material to achieve the desired static dissipation of ABS-ESD7, introducing some safety considerations for people who will be handling the material. Carbon elements will be released into the air if this material is sanded. N100 respirators are rated for airborne carbon and must be worn while sanding this material. It is also important to always sand this material in a well-ventilated area away from anyone not wearing a mask. A sanding room with a dust-collection system or a paint booth is ideal. Refer to the MSDS sheet on the Stratasys website for additional safety data.

A worker sands ABS-ESD7 next to a dust-collection system while wearing safety glasses, gloves and a respirator.

Packaging

To keep this material free from foreign particles, be sure it is not exposed to packing peanuts or other lint-type shipping materials. The best way to do this is to place it in a plastic bag for transportation.

ABS-ESD7 parts are best transported in plastic bags.

Conclusion

ABS-ESD7 is a great new material from Stratasys. With basic understanding of common finishing operations, safety considerations and packaging concerns, this material and the part built from it will perform as designed.

Stratasys Headquarters

7665 Commerce Way,
Eden Prairie, MN 55344
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

1 Holtzman St., Science Park,
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000
+972 74 745 5000 (Fax)

stratasys.com
ISO 9001:2015 Certified

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