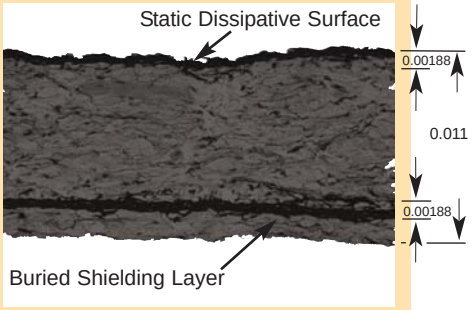
PROTEKTIVE PAK
BURIED SHIELDING LAYER

Benefits of Protektive Pak Impregnated Corrugated vs. Coated Material

	Impregnated	vs.	Coated Material
1	**CONSISTENT QUALITY** Manufactured by one paper mill with computerized control, resulting in consistent high quality.		Manufactured without computer controls and applied at various geographical locations, resulting in quality variations.
2	**STATE-OF-THE-ART TECHNOLOGY** Carbon is added during the paper making process. The paper is a 6 layer process. The top surface layer is static dissipative, measuring 10^7 to 10^9 ohms. The conductive layer is in the 5th layer from the surface measuring $<10^4$ ohms.		Material is coated or printed with carbon loaded black ink which is then coated with a clear sealer to help coating stay on. Shielding layer is very close to surface and high carbon content can bleed through. Result is very poor and inconsistent static dissipative effectiveness.
3	**LOWER SULFUR CONTENT** Manufactured from 100% recycled paper with consistently low sulfur content.		Manufactured from either recycled or virgin paper or a combination of both. Sulfur content may be low or high which can cause corrosion to leads and circuits.
4	**GREATER DURABILITY - 1,000 Times Thicker** Abrasion tests have shown no loss in particles at 100 cycles, only 1% loss for 200 cycles and 60% loss for 500 cycles.		Tests have shown a 50% loss in particles in only 10 cycles and a 100% loss in 100 cycles.
5	**SLOWS RAPID DISCHARGE** Burying the conductive layer under a dissipative surface reduces the potential for a rapid discharge when contacted by a charged device.		A very conductive surface that may pose a charged device model (CDM) ESD danger to components stored in open bin boxes, in-plant handlers, shippers, totes, nesting trays, etc.
6	**BETTER SHIELDING EFFECTIVENESS** Shielding effectiveness is equal to or greater than coated conductive materials.		Some coated products shield poorly due to inconsistent application procedures by some manufacturers.
7	**BETTER VALUE** More durable structure, 1,000 times thicker, which consistently shields your product from ESD, is also safer and better for the environment.		Simple structure which can lack consistency of ESD shielding, durability, and safety.

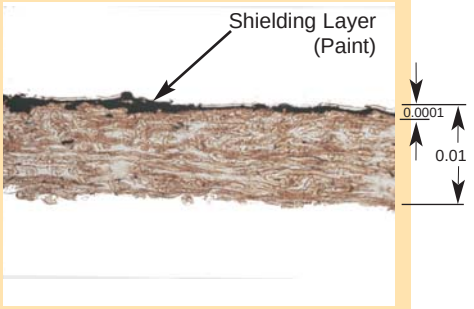
Per ESD Handbook TR 20.20 paragraph 5.4.3.3.1 Returnable and Reusable Packaging “In some situations, packaging may be designed for reuse [and] may be reused numerous times. The initial cost of these packages may be relatively expensive. However, if the appropriate collection and recycling system is used, the container may be the least expensive choice over time.”

Protektive Pak

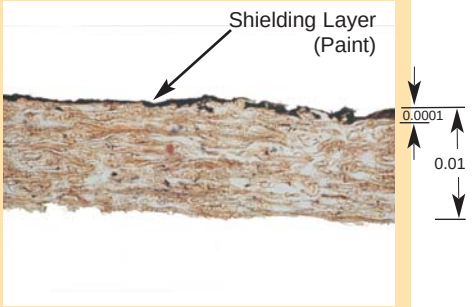


Microscopic cross section of PROTEKTIVE PAK’s linerboard

Other Coated Material



Microscopic cross section of carbon coated linerboard



Microscopic cross section of graphite printed linerboard

All microscopic photos are approximately the same scale.

Web Site: ProtektivePak.com • Phone: West Coast (909) 627-2578 Phone: East Coast (781) 821-5608 • Fax: (909) 363-7331