



C-SHIELD WPS and WPAL

RoHS
Compliant

TECHNICAL BULLETIN 240-6

METAL FOIL WALLPAPER FOR RF SHIELDING

C-SHIELD WPS is 0.003" thick stainless steel foil made especially for RF shielding applications. WPAL is a 0.005" aluminum foil. Both foils are easy to work with and very effective guarding against electrical interference across a wide range of frequencies. C-SHIELD WPS and WPAL may be used to form shielded enclosures of almost any size or shape, but the principal use is in construction of large, low-cost shielded rooms and shielded anechoic chambers.

Typical Shielding Performance Insertion Loss per MIL STD 285

| Frequency | WPS (WPAL) dB down |
|------------------------|-----------------------|
| 10GHz, Plane Wave | 80 (60) |
| 400MHz, Plane Wave | 80 (60) |
| 10MHz, Electric Field | 100 (80) |
| 1MHz, Electric Field | 100 (80) |
| 200KHz, Electric Field | 100 (80) |
| 200KHz, Magnetic Field | 40 (25) |

C-SHIELD WPS and WPAL are applied like wallpaper, covering all the walls, the floor, and the ceiling. Other than normal cleanliness, no special preparation of the walls is required. The foil may be stapled in place or bonded with a thinned contact adhesive such as C-BOND 287. Adjoining sheets must be generously overlapped to avoid RF leakage. For maximum effectiveness, seams may be taped with

conductive adhesive tape or sealed with a conductive caulk such as C-BOND 280. Attempting to solder or weld C-SHIELD WPS is definitely not recommended.

Because it is made from stainless steel, C-SHIELD WPS will resist corrosion damage, even under severe conditions; however, galvanic coupling with anodic materials such as aluminum should be avoided. WPAL has moderate resistance toward corrosion. Special precautions are required in wiring and operating shielded rooms to ensure proper grounding and to avoid danger of electrical shock.

AVAILABILITY

Standard roll widths of C-SHIELD WPS are 24" and 41". WPAL is available in 24" wide rolls. A variety of roll lengths may be available, and the factory should be consulted before ordering material.

The information in this Technical Bulletin, although believed to be accurate, is not to be taken as a warranty for which Cuming Microwave assumes legal responsibility, nor as permission or recommendation to practice any patented invention without license; it is offered for verification by the customer, who must make the final judgment of suitability for any application.

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