EMC ANECHOIC ABSORBER EMC-20PCL EMC Anechoic Absorber

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ETS-Lindgren's EMC-20PCL is an ultra broadband absorber which has been optimized for EMC applications. ETS-Lindgren manufactures EMC-20PCL from high quality, low density polyurethane foam. A double immersion process evenly impregnates the foam with a proprietary conductive carbon formula. This process optimizes absorber performance and provides an extra degree of protection against water and fire damage. After curing, the foam is precision-cut into a pyramidal configuration and a coating is added for a pleasing appearance. Fifteen individual quality assurance checks take place during production.

This absorber features blunt-tips, which allow for greater working space within the chamber, while reducing the chances of absorber tip damage.

Key Features

- Designed for MIL-STD-461D/E/F, and RTCA-DO-160 Testing
- Ultra Broadband Performance: 80 MHz to 40 GHz
- 540 V/m CW Radiated Field Strength
- Max. 0.5 Watt/in² or 775 Watt/m²
- **Power Handling Fire Retardant:** Meets NRL 8093 Tests 1,2, & 3, MIT MS-8-21, UL 94, and DIN 4102-B2

Features

New or Retrofit Chamber Installation

EMC-20PCL Anechoic Absorber can easily be installed into either new construction, or as a retrofit to existing chambers.

Reduced Profile, Blunt-Tips

The EMC-20PCL has a reduced profile, providing the user a greater working space within the chamber. Blunt-tips on this absorber reduce the chance of absorber tip damage.

Non-Hygroscopic Substrate

The EMC-20PCL absorber is produced from a fireretardant chemical formula that is non-hygroscopic. As a result, the absorber is not affected by moisture and will maintain its mechanical and RF performance over the life of the product.

Assorted Colors

The EMC-20PCL is now available in the original blue, black or white.

Performance Standards

EMC-20PCL absorber meets or exceeds MIL-STD-461D/E/F and RTCA-D0-160 performance requirements and is ideal for new installations or chamber retrofits. It provides an ultra broadband performance range of 80 MHz to 40 GHz.

Ultra-Broadband Performance

During the manufacturing process, our unique twostep impregnations are specially formulated to provide improved reflectivity performance below 200 MHz. This tuning is verified on each absorber piece in a large coaxial reflectometer which measures reflectivity vs. frequency from 20 MHz to 300 MHz to ensure consistency of performance.

Power Handling

EMC-20PCL has excellent power handling capabilities. This absorber has been proven to safely withstand up to 0.5 Watt/in² CW power density in RF and microwave frequency ranges. Maximum service temperature is 90°C (190°F) continuous.

Standards

This absorber meets the fire retardant standards of NRL 8093 Tests 1, 2, 3, MIT MS-8-21, UL 94, and DIN 4102-B2: Tests for Flammability. EMC-20PCL has an ASTM E84-84 flame-spread index of 35 and a smoke developed index of 450.

Specifications

Electrical Specifications

Frequency Minimum: 80 MHz Frequency Maximum: 40 GHz Power Handling (CW):

- 540.0 V/m
- 775.0 W/m²
- 0.5 W/in²

Power Handling (Max):

- 1000.0 V/m
- 2650.0 W/m²
- 1.7 W/in²

Physical Specifications

Length: 61.0 cm (24.02 in) Width: 61.0 cm (24.02 in) Height: 50.8 cm (20.00 in) Weight: 4.6 kg (10.14 lb)

Product Charts

Normal Incidence Reflectivity Loss of Flat-Tip EMC-20PCL

