

## EMC ABSORBER DURASORB™ POLYSTYRENE HYBRID ABSORBER



### MODEL DSH-400M

- 80 MHz to >40 GHz Frequency Range
- For MIL-STD-461
- Durable Construction, Precision Installation Design
- Non-hygroscopic, Fire Resistant

**ETS-Lindgren's DuraSorb DSH-400M** is the latest evolution of ETS-Lindgren's low profile, hybrid anechoic absorber technology. It combines the advantages of proven FerroSorb performance with the physical properties of our PS Series absorbers. DuraSorb is constructed using substrates consisting of rigid, closed cell foams, that are volumetrically and uniformly loaded throughout the absorber. DSH-400M is ideal for MIL-STD-461 chambers.

The DSH-400M provides a smooth transition from free space impedance to the lossy ferrite tile base. As a result of its optimized design, high performance is guaranteed, both at lower frequency bands and frequencies above 1 GHz. It has a reflectivity better than 8 dB from 80 MHz to 250 MHz, and better than 20 dB above 250 MHz. The absorption levels make DuraSorb ideal for testing to MIL-STD-461 standards.

DuraSorb is manufactured by injecting uniformly loaded lossy materials in predetermined geometric shapes to produce the desired performance. After the lightweight substrates have been molded, they are shipped disassembled to job-sites for reduced shipping volume. Easily assembled at the site, finished absorbers are pressed and glued into a lightweight polystyrene universal mounting base on the walls and ceiling of the chamber. This method assures absorber rows are aligned with geometric precision.

DuraSorb is intrinsically non-hygroscopic due to its closed cell design. Furthermore, DuraSorb is engineered to have outstanding fire resistance. The material is treated additionally with environmentally friendly fire retardants beyond what is normally required for construction grade foams. DuraSorb material has been tested to meet the requirements of UL 94 HBF, DIN 4102 B2.

DSH-400M is compact in size, with a 40 cm (15.75 in) height, and 40 cm x 20 cm (15.75 in x 7.87 in) footprint wedge shaped pyramids.

### Standard Configuration

- DuraSorb Polystyrene Absorber
- PS-1001 Polystyrene Universal Mounting Base
- Ferrite Substrate

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## Technical Specifications

| Electrical               |                          |
|--------------------------|--------------------------|
| Frequency                | 80 MHz to >40 GHz        |
| Reflectivity             | 80 MHz to 250 MHz: 8 dB  |
|                          | 250 MHz to 40 GHz: 20 dB |
| Power Handling (CW)      | 200 V/m                  |
|                          | 106 W/m <sup>2</sup>     |
|                          | 0.068 W/in <sup>2</sup>  |
| Power Handling (Maximum) | 600 V/m                  |
|                          | 954 W/m <sup>2</sup>     |
|                          | 0.0615 W/in <sup>2</sup> |
| Physical                 |                          |
| Height                   | 40.0 cm                  |
|                          | 15.75 in                 |
| Width                    | 20.0 cm                  |
|                          | 7.87 in                  |
| Depth                    | 40.0 cm                  |
|                          | 15.75 in                 |
| Fire Standard            |                          |
| Tested To                | UL 94 HBF<br>DIN 4102 B2 |

**DSH-400M**  
Return Loss (dB)

