



# FERROSORB™

## FS-400

Rantec FerroSorb<sup>®</sup> FS-400 is an evolution in low profile anechoic technology. This numerically optimised hybrid combines high performance carbon-loaded foam absorber with a precision-manufactured ferrite tile. The result is a space-saving profile that is less than half the depth of traditional foam-only products. FS-400 is ideal For EMC chamber applications that call for high performance requirements in compact environments, such as three meter and SpaceSaver™ EMC chambers.

The FS-400 design features an ultra broadband 30MHz to 18GHz frequency range, achieves superior levels of absorption reflectivity, and exhibits excellent power-handling capability. Chambers designed with FerroSorb™ FS-400 will meet the +/- 4 dB normalised site attenuation requirements specified in ANSI C63.4 and EN 50147-2.

### Description

FerroSorb™ FS-400 is manufactured from high quality, low density polyurethane foam, undergoing 15 quality assurance checks during production. A double immersion process evenly impregnates the foam with a proprietary conductive carbon formula. This process also renders the foam fire retardant and the carbon matrix water impervious. After curing, the foam is cut into a precise wedge configuration and a coating is added for a pleasing appearance. The polyurethane dielectric is mounted on a specially formulated, precision-machined ferrite tile. To enhance high frequency performance, additional 15cm (6 in) pyramidal absorbers are positioned at the base of the larger absorber.

### Features

FerroSorb™ FS-400 has a unique composite construction that combines the best of ferrite tile technology with high performance anechoic absorber to achieve an ultra broadband operating frequency of 30 MHz to 18 GHz. Absorption/reflectivity performance of FS-400's 400 mm (15.75 in) size is superior to dielectric material measuring more than twice its depth.

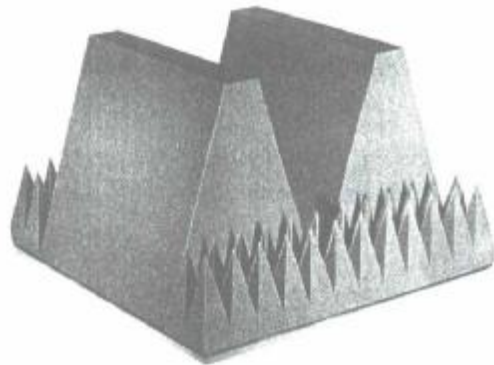
FS-400 has excellent power handling capability for today's immunity standards testing, and can safely handle continuous exposure to fields up to 200 V/m.

## FS-400

### High Performance Hybrid Ferrite Tile/Polyurethane Dielectric

### From 30MHz - 18 GHz

- ◆ SpaceSaver<sup>®</sup> & 3m Chamber Applications
- ◆ Numerically Optimised Design Achieves Superior Performance
- ◆ Ultra Broadband Frequency Range 30MHz - 18GHz
- ◆ 200 V/m Power Handling
- ◆ Maximises Test Volume - Less Than 1/2 the Depth of Traditional EMC Absorber
- ◆ Fire Retardant Meets NRL 8093 Tests 1, 2 & 3, TI #2693066, MIT MS-8-21, UL 94 and DIN 4102-B2
- ◆ Suitable for Retrofits to Upgrade Performance



FS-400 is ideal for retrofits and new installations. The product's reduced size, as compared to traditional foam-only absorber, means that overall room size can be reduced, resulting in significant total project savings.

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## RFI Industries Pty Limited

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EMC TESTING  
EMC COMPONENTS  
MAGNETIC SHIELDING  
EMC INSTRUMENTATION  
RF ANECHOIC CHAMBERS  
RF/EM SHIELDED ENCLOSURES



# FERROSORB™ FS-400

FerroSorb™ FS-400 is fire retardant and meets the standards of NRL 8093 Tests 1, 2 & 3, TI #2693066, MIT MS-8-21, UL 94, and DIN 4102-B2: Tests for Flammability.

Like all Rantec EMC absorber, FS-400 is tested as a full assembly for performance verification in the critical low frequency range. All FerroSorb™ absorber is tested in a non-destructive process using a vertical waveguide. This testing assures quality of the complete absorber, resulting in optimised chamber performance.

### Applications

FerroSorb™ FS-400 is designed for applications in three meter and SpaceSaver™ EMC chambers. The product is ideal where compliance Class B product testing, per FCC and EN 50147-2 regulations, will be performed.

FS-400 can also be used for compliance testing to IEC 1000-4-3, MIL-STD 461D/1462D, EN 55022 and other common EMC test applications.

### Physical Properties

PART #	HEIGHT OVERALL	UNIT SIZE (SQUARE)	NOMINAL WEIGHT
FS-400	400.0mm 15.7 IN	600.0 mm 23.6 IN	19 KG 41 LB
	<b>MOUNTING</b>	<b>RATINGS: FIRE RETARDANT</b>	
	Mechanical Fastener	NRL 8093 Tests 1, 2 & 3 TI #2693066, MIT MS-8-21 UL 94 and DIN 4102-B2	

### Electrical Properties

PART #	FREQUENCY	POWER HANDLING
FS-400	30 mhZ - 18 ghZ	200 v/M cw

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