



## WAVASORB® VHP FL

Advanced Broadband Walkable Absorber



- WAVASORB VHP FL is a series of walkable, rectangular-shaped, carbon-loaded, urethane-foam absorbers.
- Premium performance in the operating frequency range from 100 MHz to 1 GHz and moderate performance in the operating frequency range from 1 GHz to 110 GHz, obtained by optimization.
- Certified to all fire-retardancy and environmental specifications by containing an advanced chemical composition.
- High load-bearing capacity by encapsulating a WAVASORB VHP absorber in a solid, low-density polyurethane counterpart.
- REACH- and RoHS-compliant, maintaining a healthy environment for operation.
- Designed and quality controlled using commercial and original simulating and test techniques.

# WAVASORB® VHP FL

E&C Anechoic Chambers has a fully automated manufacturing facility with CNC-controlled foam-cutting machines, computer-controlled impregnation, drying processes, and robotized painting to ensure stability of RF and fire-retardant performances.

Seventy years experience with absorber-manufacturing techniques provides consistency in chemical compositions, electrical and fire-retardant properties with uniform distribution.

E&C Anechoic Chambers can provide customized solutions to accommodate cleanroom requirements, flexible coatings and paintings to improve durability, and engineered pre-cuts and custom parts fit for equipment linings.

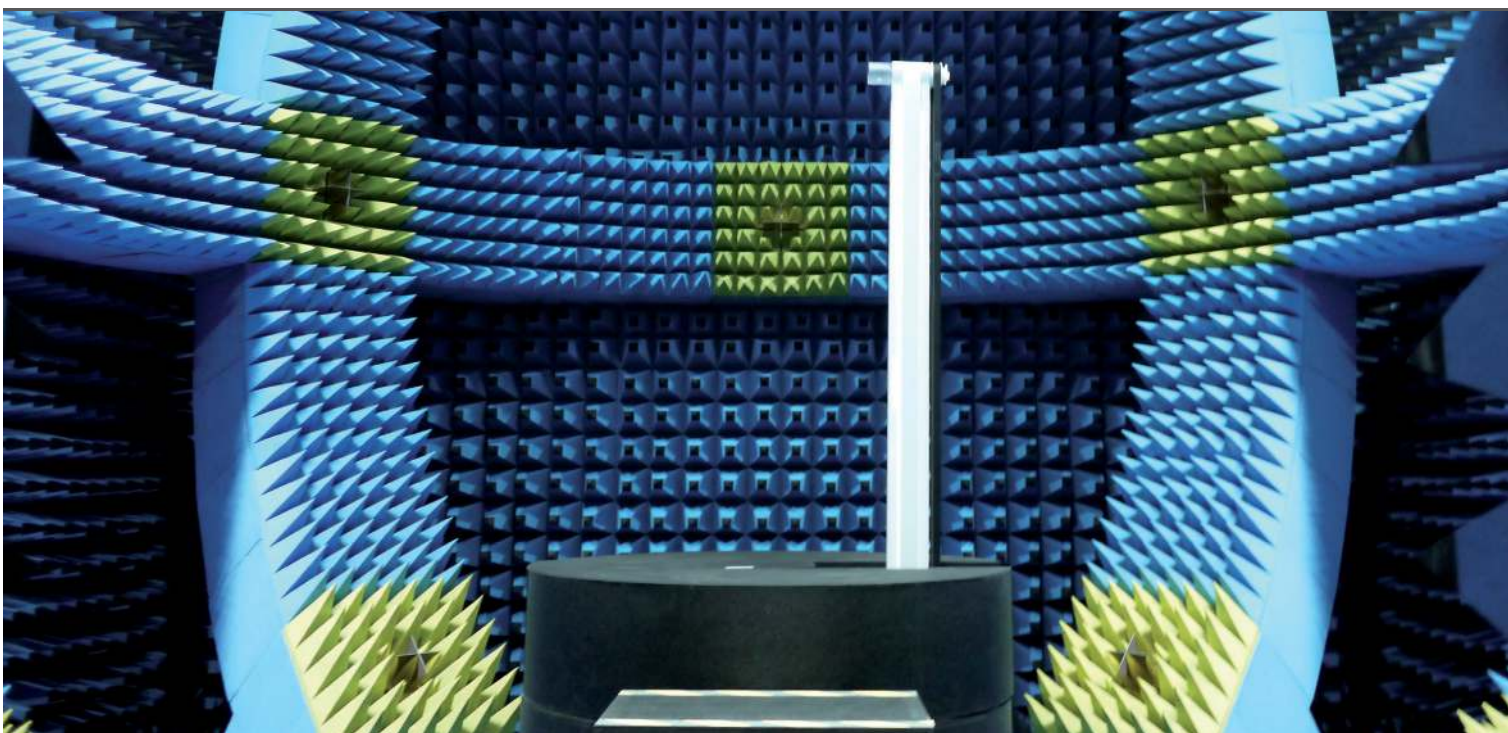
Perfectionism is our goal, with special attention to the dimensions and geometry of the individual absorber panels that enhance performance as well as optical appearance of the entire test facility.

## Measurement Techniques

WAVASORB VHP FL is manufactured in well-defined batches, and their reflectivity and fire-retardant properties are continuously monitored following internal ISO 9001 procedures.

The reflectivity of a particular grade of WAVASORB VHP FL corresponds to that of the initial WAVASORB VHP, except at microwave frequencies where the performance will deteriorate by typically 10-15 dB. For different grades, the high frequency reflectivity is limited to approximately -35 dB.

The intrinsic material parameters are regularly measured with state-of-the-art test set ups and optimized using numerical simulation software. WAVASORB VHP FL is tested routinely in the frequency range from 100 MHz to 9 GHz using a set of coaxial lines, waveguides and NRL Arches in accordance with IEEE Standard 1128.



## Manufacturing and Installation Method

WAVASORB VHP FL is made from a rigid low-density polyurethane counterpart, transforming WAVASORB VHP into a walkable version. To improve the wear characteristics, there is an additional laminate of polyvinyl-chloride on top and all sides.

Customized designs in different sizes and shapes, stairs and circular pieces to cover turntables are available.

WAVASORB VHP FL is placed on the floor without additional fixations, yet stability is ensured.

## Applications

WAVASORB VHP FL is the preferred solution to provide easy access to antennas and equipment under test in Far-field, Near-field and Compact Antenna Test Ranges, Rader Cross Section (RCS) facilities, Electronic Warfare (EW) test ranges and wireless Over-The-Air (OTA) measurement systems.

WAVASORB VHP FL absorbers are placed in strategic areas of the floor to maximize high-frequency performance of the test facility and minimize unwanted reflections.



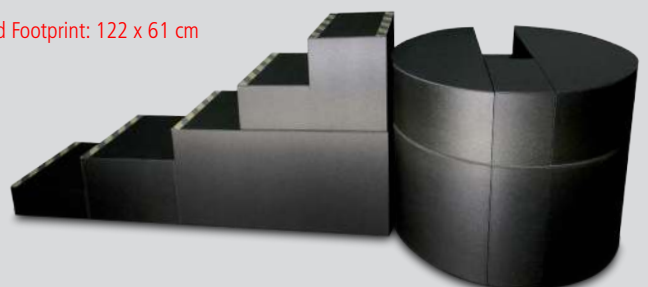
## Characteristics

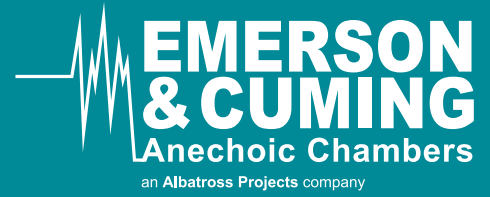
Standard Color	Black
	Base Dimensions: 1220 x 610 mm
Operation Temperature	+5°C to +35°C
Humidity Range	30% to 70%
Frequency Range	100 MHz - 9 GHz
Load-bearing Capacity	200 kg/m <sup>2</sup>
Fire-retardancy	NRL 8093 Tests 1, 2 and 3 DIN 4102-1 Class B2 ISO 11925-2 Class E UL-94/HBF ISO 4589-2
RoHS Compliant	According to 2011/65/EU
Reach Compliant	According to EC 1907/2006
Quality Control	IEEE Standard 1128 ISO 9001
Product Life	5+ Years

## Physical Properties

	Total Height (cm)	Nominal Weight (kg)
WAVASORB VHP-4-FL	18.0	10
WAVASORB VHP-8-FL	26.0	12
WAVASORB VHP-12-FL	37.0	17
WAVASORB VHP-18-FL	54.0	24
WAVASORB VHP-26-FL	74.0	30
WAVASORB VHP-36-FL	99.0	35

Standard Footprint: 122 x 61 cm





## Related WAVASORB® Series



WAVASORB® VHP CO:  
Coated Absorber



WAVASORB® HFX/HFS:  
High Power Absorber



WAVASORB® VHP:  
Broadband Pyramidal Absorber



WAVASORB® VHP VE:  
Ventilation Absorber



WAVASORB® VHP OD:  
Outdoor Absorber

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