

# WAVASORB<sup>®</sup> HFX / HFS

## High-Power Broadband Pyramidal Absorber

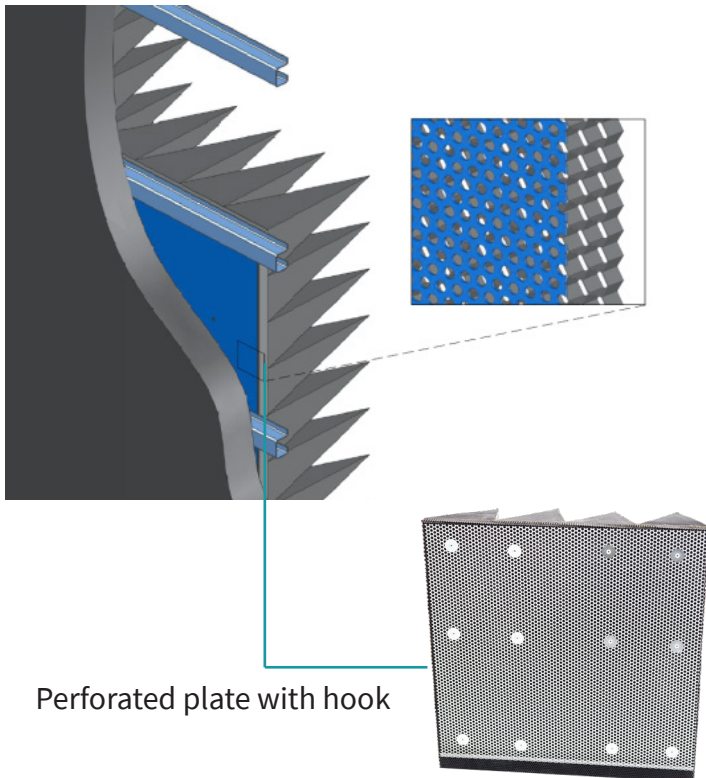
- WAVASORB<sup>®</sup> HFX / HFS is a series of hollow, pyramidal-shaped absorbers for high- and medium-power applications.
- The hollow nature of the absorber makes them lightweight rf-absorbers that enhance the convection process.
- Premium performance in the operating frequency range from 80 MHz to 40 GHz, obtained by optimization of the geometry of each absorber type.
- Certified to fire-retardancy and environmental specifications through containing an advanced chemical composition.
- Excellent power-handling capability assured under continuous wave exposure.
- REACH-and RoHS-compliant, maintaining a healthy environment for operation.
- Designed and quality controlled using original simulating test techniques.

## Installation Methods

WAVASORB® HFX / HFS is installed by perforated Plate & Rail mountings.

This mounting system ensures:

- Easy exchange and free circulation of air;
- Perfect geometry and alignment compatibility with any type of shielding.



Perforated plate with hook

## Applications

WAVASORB® HFX / HFS is the preferred solution:

\* to partially or totally line areas in the anechoic chamber of:

- Near-Field facilities;
- Compact Antenna test ranges;
- Facilities for satellite testing.

\* when excellent power handling capability is needed to safely withstand an incident CW power density of (both without forced airflow):

- up to 15 kW/m<sup>3</sup> for WAVASORB® HFX;
- up to 3 kW/m<sup>3</sup> for WAVASORB® HFS.

When forced airflow is used, both WAVASORB® HFX & HFS can handle higher incident powers.

The honeycomb structure of WAVASORB® HFX / HFS combines high strength with fire-resistant properties, allowing ventilated air throughout the structure to withstand higher illuminating-power capacities.

**For more information, contact your sales representative.**



With respect for the environment



## Characteristics

<b>Handling temperature</b>	+5°C to +35°C
<b>Operating temperature <sup>(1)</sup></b>	HFX: +200°C HFS: +150°C
<b>Humidity range</b>	30% to 70%
<b>Frequency range</b>	80 MHz up to 40 GHz
<b>Maximum incident power density<sup>(2)</sup></b>	HFX: 15 kW/m <sup>2</sup> , 9,68 W/in <sup>2</sup> , 2378 V/m HFS: 3 kW/m <sup>2</sup> , 1,93 W/in <sup>2</sup> , 1063 V/m
<b>Fire retardancy tests</b>	Compliant with: - DIN 4102-1 Class B2
<b>Environmental testing</b>	According to: - IEC 60068-2-1 Test Ab - AATCC 30-IV (2004)
<b>REACH compliant</b>	According to EC 1907/2006
<b>RoHS compliant</b>	According to 2015/863/EU
<b>Quality control</b>	IEEE Standard 1128 ISO 9001
<b>Product life</b>	+10 years under controlled environment

<sup>(1)</sup> Depending on the environmental temperature

<sup>(2)</sup> High-power values are based on tests without using forced airflow. By using forced airflow, the absorber can handle higher incident power densities; for more information, contact your sales representative

## Physical properties

	Standard color	Standard footprint <sup>(1)</sup>
<b>WAVASORB® HFX</b>	Black	61 cm x 61 cm
<b>WAVASORB® HFS</b>	Black	61 cm x 61 cm

<sup>(1)</sup> The above-mentioned dimensions have a tolerance of +/-6 mm

	Total height <sup>(1)</sup> (cm)	Nominal weight <sup>(2)</sup> (kg)	Number of pyramids per piece
<b>WAVASORB® HFX-18</b>	45,7	5,5	16
<b>WAVASORB® HFX-26</b>	66,0	6,0	9
<b>WAVASORB® HFX-36</b>	91,4	6,5	4
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<b>WAVASORB® HFS-18</b>	45,7	7,5	16
<b>WAVASORB® HFS-26</b>	66,0	8,5	9
<b>WAVASORB® HFS-36</b>	91,4	9,5	4

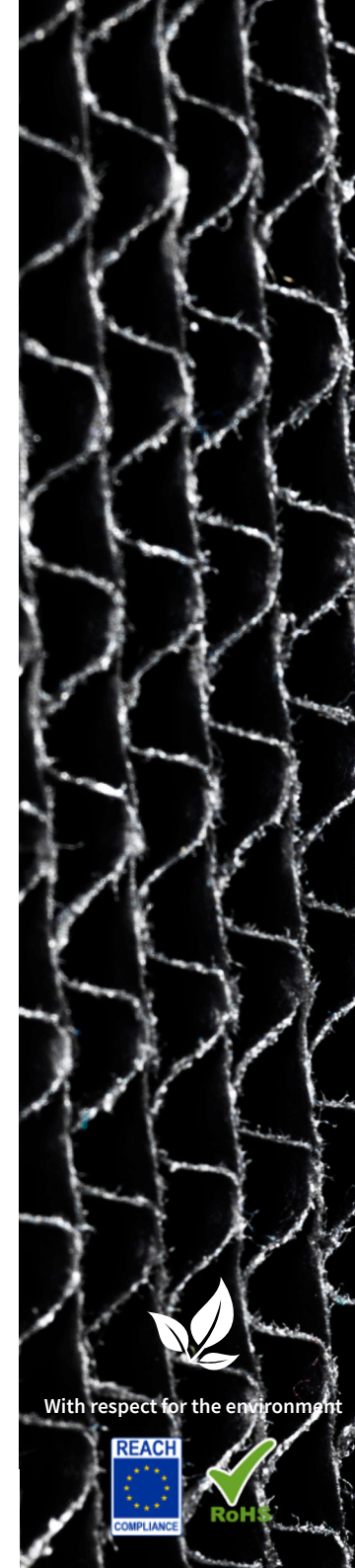
<sup>(1)</sup> The above-mentioned dimensions have a tolerance of +/-6 mm

<sup>(2)</sup> Weight values are subject to changes; weight values include the perforated backing plates

WAVASORB® HFX open cell structure



WAVASORB® HFS open cell structure

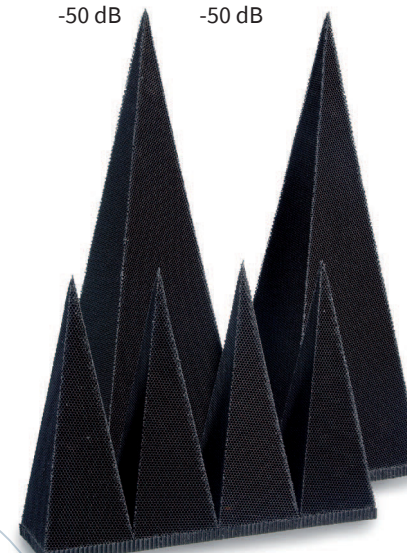


## Typical reflectivity performance at normal incidence & measurement techniques

WAVASORB® HFX / HFS is manufactured in well-defined batches and their reflectivity and fire-retardant properties are continuously monitored following internal ISO 9001 procedure. WAVASORB® HFX / HFS is tested routinely in-house in the frequency range from 30 MHz to 9 GHz using a set of coaxial lines, waveguides and NRL Arch in accordance with the practice recommended in IEEE Standard 1128. In the high-frequency range, measurements are performed in the frequency range of 9 GHz up to 110 GHz inside a compact range facility of an external test house. Furthermore, WAVASORB® HFX / HFS offers favourable reflectivity properties at off normal angles of incidence with almost no reflectivity degradation up to 45 degrees.

TYPICAL REFLECTIVITY (dB)											
	80 MHz	160 MHz	200 MHz	300 MHz	500 MHz	800 MHz	1 GHz	3 GHz	6 GHz	12-18 GHz	18-40 GHz <sup>(1)</sup>
<b>WAVASORB® HFX-18</b>				-20 dB	-25 dB	-30 dB	-38 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® HFX-26</b>	-6 dB		-18 dB	-25 dB	-30 dB	-35 dB	-42 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® HFX-36</b>	-6 dB	-15 dB	-23 dB	-28 dB	-35 dB	-40 dB	-42 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® HFS-18</b>				-20 dB	-25 dB	-30 dB	-38 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® HFS-26</b>	-6 dB		-18 dB	-25 dB	-30 dB	-35 dB	-42 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® HFS-36</b>	-6 dB	-15 dB	-23 dB	-28 dB	-35 dB	-40 dB	-42 dB	-45 dB	-50 dB	-50 dB	-50 dB

<sup>(1)</sup> For more information, contact your sales representative



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**Safety Considerations:** It is recommended to consult the E&C ANECHOIC CHAMBERS product literature, including material safety data sheets, prior to use E&C ANECHOIC CHAMBERS products. These may be obtained from your local sales office.

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