

## SIEPEL ELECTROMAGNETIC ABSORBER HYBRID PYRAMIDAL & TRUNCATED



### CUSTOMER'S BENEFITS

SEA-HY is a combination of ferrites + premium hybrid pyramidal or truncated absorbers.

Purpose: lining of EMC anechoic chambers used for industrial testing (CISPR16-1-4, CISPR25), and defense testing (DO-160 & MIL-STD-461).

They are also used to perform radio tests (ETSI standards).

SEA-HY can be installed to upgrade or refurbish existing chambers.

- Long-lasting investment
- High performance at optimal cost
- Fast delivery, commercially available off-the-shelves
- Modular installation with a smart rail system
- Simple dismantling during a relocation or upgrade
- Personalisation with a wide range of colours

### CHARACTERISTICS

- Broadband frequency range 30 MHz - 40 GHz
- Ferrite panels + specific pyramidal foam absorbers
- 3 categories: regular pyramidal absorbers (HY) and 2 types of truncated tips: HYT, equivalent to HY with cut tips to save space & HYT+ with an adapted carbon load for better performances in high frequencies
- Maximum power handling: 2 kW/m<sup>2</sup> (CW)
- Maximum temperature: +160°C (320°F)
- Indoor use

### LIV-COATING ADVANTAGES

- This technological breakthrough in absorbers coating provides:
  - Softness and memory shape: no need to replace your absorbers on high traffic areas
  - Sturdiness: improved mechanical strength, no premature breakdown
  - Aesthetic: brighter working environment
- A wide range of colours is also available for a customized design

### COMPLIANCE TO STANDARDS & DIRECTIVES

- Fire retardancy: compliant to NRL 8093 (tests 1, 2, 3), DIN 4102-B2, ISO 11925-2 Euroclass E, UL-94/HBF
- Environmental: RoHS compliant according to 2011/65/EU / REACH compliant according to EC 1907/2006; environment tests compliant to standards (ISO/EN60068-2-1 & ISO/EN60068-2-78)
- Cleanroom conditions: ISO class 4 according to ISO 14644-1

### REFLECTIVITY PERFORMANCES

- Values in dB at normal incidence for the combination of ferrites and pyramidal hybrid and truncated absorbers
- These reflectivity performances are guaranteed for 25 years
- They are the result of an extensive experience in the manufacturing of electromagnetic absorbers

	TYPE	30 MHz	50 MHz	80 MHz	100 MHz	200 MHz	300 MHz	500 MHz	1 GHz	2 GHz	4 GHz	8 GHz	12 GHz	18 GHz	40 GHz
HYBRID	HY 30	-19	-20	-20	-18	-16	-14	-13	-13	-11	-11	-14	-15	-20	-24
	HY 45	-19	-20	-20	-19	-16	-15	-15	-15	-13	-16	-18	-19	-22	-24
HYBRID TRUNCATED	HYT 20	-19	-20	-21	-20	-16	-14	-10	-10	-9	-8	-9	-9	-11	-15
	HYT 30	-19	-20	-20	-18	-16	-14	-13	-11	-10	-10	-12	-12	-20	-20
	HYT 45	-19	-20	-17	-17	-16	-15	-15	-15	-13	-15	-17	-19	-24	-22
	HYT 60	-18	-20	-19	-18	-16	-17	-16	-16	-14	-17	-20	-23	-25	-25
	HYT 20+	-18	-19	-20	-19	-15	-14	-11	-11	-10	-10	-10	-10	-12	-16
	HYT 30+	-18	-19	-20	-18	-16	-15	-14	-13	-13	-14	-15	-15	-24	-25
	HYT 45+	-18	-18	-17	-17	-15	-15	-15	-16	-15	-20	-23	-24	-27	-27
	HYT 60+	-16	-15	-15	-15	-15	-17	-17	-20	-20	-25	-28	-28	-35	-35

Siepel recommends using 6.7 mm thick ferrite tiles to reach the best performances.

## SIEPEL ELECTROMAGNETIC ABSORBER HYBRID PYRAMIDAL &amp; TRUNCATED

## ■ DIMENSIONAL PROPERTIES

	TYPE	OVERALL HEIGHT		ABSORBER HEIGHT		PYRAMID HEIGHT		BASE HEIGHT		WEIGHT	
		mm*	in*	mm	in	mm	in	mm*	in*	kg*	lb*
HYBRID	HY 30	313	12.3"	305	12"	245	9.7"	68	2.7"	17.5	38.6
	HY 45	463	18.2"	455	18"	380	15"	83	3.3"	19	41.9
HYBRID TRUNCATED	HYT 20/+	108	4.3"	100	3.9"	45	1.8"	63	2.5"	17	37.5
	HYT 30/+	208	8.2"	200	7.9"	140	5.5"	68	2.7"	17.5	38.6
	HYT 45/+	358	14.1"	350	13.8"	275	10.8"	83	3.3"	18.4	40.6
	HYT 60/+	508	20"	500	19.7"	400	15.8"	108	4.3"	19.5	43

\*including ferrite tiles

Base size 605 x 605 mm (23.8" x 23.8") – Typical dimensions and weights



## ■ MODULAR INSTALLATION

- Siepel offers a smart rail system made of horizontal and vertical struts attached onto the shielded room
  - No drilling required, thus high level of shielding performances
  - Easy dismantling without loss of material
  - Reliable fixation ensuring no risk of ferrite detachment
  - Hybrid absorbers are glued over the ferrite panels
- Ferrite panels can also be glued onto wooden boards



## ■ SIEPEL BY YOUR SIDE

- Your project under control : Managed by our in-house design & manufacturing business units
- Engineering capabilities for the standard or custom design of anechoic chambers according to your request
- Commitment on outstanding finishes
- Installation performed by our highly qualified supervisors

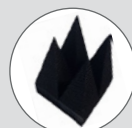
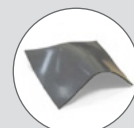
## QUALITY

- Siepel aims to deliver to its customers a high-level of quality for all products and services
- Thanks to an ISO 9001/ISO 17025 quality management system, our company continuously focuses on customer satisfaction and excellence
- Siepel fulfills environmental obligations such as REACH and RoHS directives, as well as other current regulations

## IN-HOUSE TESTING

- Reflectivity performances factory-controlled as per IEEE standard 1128
- SEA absorbers are tested in Siepel's internal fire test lab as well as in independent test laboratories
- Factory Acceptance Tests (FAT): Reflectivity measurements from 30 MHz to 50 GHz

## AN EXTENSIVE RANGE OF EMC &amp; MICROWAVE ABSORBERS

Microwave  
SEA-PM & TMWeatherproof  
SEA-WPWalkway  
SEA-WWHigh power  
SEA-HPElastomeric  
SEA-ELS & ELP