HIGH POWER ABSORBER
AHP

Siepel

AHP absorbers are designed to line specific areas subject to high power densities (up to 20 kW/m² CW and above), in applications such as Telecom / Wireless, Satellite, Automotive, Military, etc...

Thanks to their specific open structure, they can withstand high temperatures resulting from generation of high fields strengths. AHP absorbers are typically used to line "hot spots" in anechoic chambers, where energy will be highly concentrated.
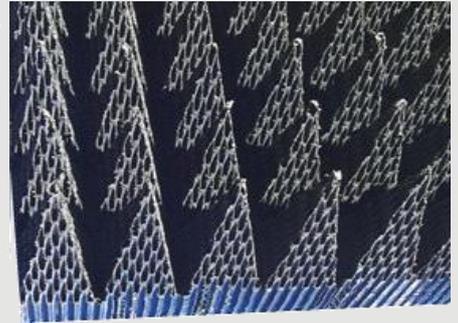
REFLECTIVITY PERFORMANCES

Type	Height (mm)	MINIMUM REFLECTIVITY OF AHP in dB (For incidence angles close to the normal)									
		300 MHz	500 MHz	1 GHz	2 GHz	4 GHz	8 GHz	12 GHz	18 GHz	40 GHz
AHP 9	89			-11	-21	-27	-40	-40	-40	- 25
AHP 12	115			-15	-25	-30	-40	-40	-40	- 36
AHP 20	210			-25	-30	-35	-40	-40	-43	- 36
AHP 30	290			-30	-35	-40	-40	-40	-43	- 36
AHP 45	439		-27	-33	-36	-45	-40	-40	-43	- 36
AHP 60	600		-28	-40	-43	-46	-50	-50	-48	-38
AHP 90	900	-25	-30	-45	-45	-46	-50	-50	-49	-40
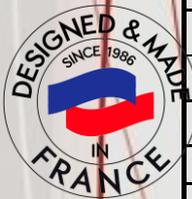
MAIN CHARACTERISTICS

AHP absorbers are manufactured from honeycomb matrix, made from phenolic-based material. These whole blocks are entirely coated with carbon-based solution, creating their electromagnetic waves absorption properties, while their hollow open structure ensures a passive airflow cooling. For highly demanding applications, with power densities exceeding 20 kW/m² CW, forced air can be drawn through the AHP absorbers to extend their power withstanding capabilities.

- **Matrix:** phenolic-based honeycomb
- **Impregnating agents:** carbon solution, binder
- **Colours:** black (unpainted)

- **Maximum service temperatures:** - 65°C to +200°C
- **Maximum power handling:** 20 kW/m², can be increased with forced ventilation
- **Installation method:** can be glued on any flat and clean surface.

Our raw materials are **compliant to RoHS / REACH** and free of substances in the current list of Substances of Very High Concern (SVHC) published by the European Chemicals Agency (ECHA).

DIMENSIONS

Type	Total height		Pyramids height		Base height		Footprint		Pyramids / absorber	Weight	
	mm	in	mm	in	mm	in	mm	in	absorber	kg	Lb
AHP 9	89	3.50	69	2.72	20	0.79	610 x 610 ±3	24 x 24 ±0.12	16 x 16	1	2.20
AHP 12	115	4,53	90	3,54	25	0,98	610 x 610 ±3	24 x 24 ±0,12	16 x 16	1.3	2,87
AHP 20	210	8,27	180	7,08	30	1,18	610 x 610 ±3	24 x 24 ±0,12	9 x 9	2.2	4,85
AHP 30	290	11,42	260	10,23	30	1,18	610 x 610 ±3	24 x 24 ±0,12	6 x 6	3.2	7,05
AHP 45	439	17,28	397	15,63	42	1,65	610 x 610 +5/-1	24 x 24 +0,2/-0,04	4 x 4	4.2	9,26
AHP 60	600	23,62	555	21,85	45	1,77	610 x 610 ±3	24 x 24 ±0,12	2 x 2	4,4	8,82
AHP 90	900	35,43	855	33,66	45	1,77	610 x 610 ±3	24 x 24 ±0,12	2 x 2	6,2	13,22

These data are the result of tests performed in our laboratory. They are considered to be the best of our knowledge. The use of the material and the specification of the performances are made under the whole responsibility of users who should ensure themselves that the material is suitable for their purposes.