



SEA-ELP & ELS

SIEPEL ELECTROMAGNETIC ABSORBER
ELASTOMERIC POLYURETHANE OR SILICON
FOR REFLECTION REDUCTION



CUSTOMER'S BENEFITS

SEA-ELP & ELS is a thin and flexible absorber sheet made of elastomer polyurethane or silicone resin and combined with a magnetic load. These narrowband absorbers are used to suppress resonant cavity modes, isolate signals and attenuate surface currents.

Typically used for outdoor applications such as on masts or walls to reduce echoes or the RADAR signature.

- Long-lasting investment
- Get a tuned absorber
- Excellent moisture resistance
- Proven efficiency in naval applications
- Fast delivery, commercially available off-the-shelves

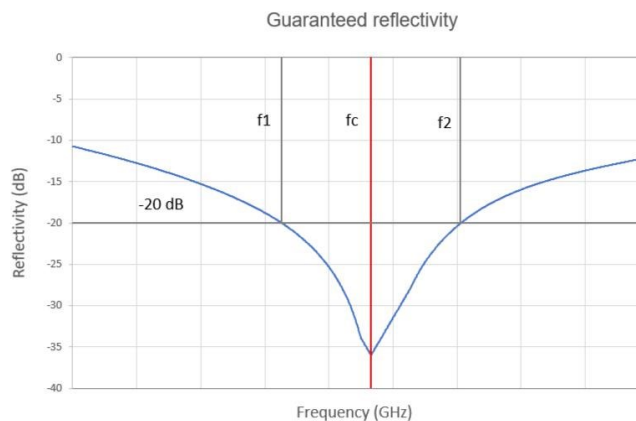
GENERAL APPLICATIONS

- Wall covering to reduce Radar signature
- Installed on masts to reduce Radar reflections and echoes
- Reduction of side lobes in antenna manufacture
- Suppression of resonance in cavities
- Covering of structures in the vicinity of Radar



REFLECTIVITY PERFORMANCES

- They provide a reflectivity from -25 to -30 dB at resonance frequency and -20 dB on a bandwidth as wide as 10% of the central frequency (1.5 to 26 GHz).
- They can be tuned on any frequency between 1.5 and 26 GHz, by optimization of the thickness and load
- Best reflectivity on the market: They are the result of an extensive experience in the manufacturing of electromagnetic absorbers.



CHARACTERISTICS

- Maximum service temperatures:
 - SEA-ELP: -60°C to +90°C
 - SEA-ELS: -60°C to +140°C
- Maximum power handling:
 - SEA-ELP: 2 kW/m² CW max
 - SEA-ELS: 8 kW/m² CW max
- Typical shore hardness:
 - SEA-ELP: 72A
 - SEA-ELS: 78A
- Typical density: 4 g/cm³
- Easy to cut and install (glued on metallic support)
- Outdoor and indoor use
- Flexible - can be bonded to curved surfaces
- Colour: grey
- SEA-ELP absorbers can be painted thanks to their polyurethane base

COMPLIANCE TO STANDARDS & DIRECTIVES

- Environmental: RoHS compliant according to 2011/65/EU / REACH compliant according to EC 1907/2006

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CHARACTERISTICS OF STANDARD PRODUCTS

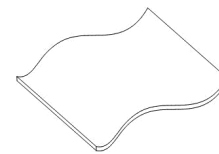
- The table below is given for a standard product with a reflectivity from -25 to -30 dB
- All SEA-ELP & SEA-ELS absorbers are customized according to your needs

TYPE	RESONANCE FREQUENCY	TYPICAL THICKNESS	
		mm	in
SEA-ELP/ELS 1.5	1.5 GHz	4.4	0.17''
SEA-ELP/ELS 2	2 GHz	3.7	0.15''
SEA-ELP/ELS 2.5	2.5 GHz	3.2	0.13''
SEA-ELP/ELS 3	3 GHz	3.2	0.1''
SEA-ELP/ELS 4	4 GHz	2.5	0.08''
SEA-ELP/ELS 5	5 GHz	2	0.07''
SEA-ELP/ELS 6	6 GHz	1.8	0.07''
SEA-ELP/ELS 8	8 GHz	1.8	0.07''
SEA-ELP/ELS 10	10 GHz	1.8	0.06''
SEA-ELP/ELS 15	15 GHz	1.4	0.05''
SEA-ELP/ELS 18	18 GHz	1.2	0.04''
SEA-ELP/ELS 24	24 GHz	1	0.04''



DIMENSIONAL PROPERTIES

- Standard sizes: 300 x 300 mm (± 5 mm)
- Thickness depends on the centre frequency of use: from 1 to 4.4mm



SIEPEL BY YOUR SIDE

- Your project under control: managed by our in-house design & manufacturing business units
- 50 employees allocated to value-added business units: R&D, design, scheduling, drawing, manufacturing, testing, crating, logistics, installation, service ...
- Commitment on outstanding finishes

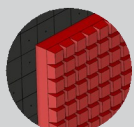
QUALITY

- 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 as REACH and RoHS directives, as well as other current regulations

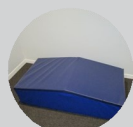
IN-HOUSE TESTING

- SEA absorbers are tested in Siepel's internal fire test lab as well as in independent test laboratories
- Reflectivity performances factory controlled, using cuttingedge broadband equipment
- Factory Acceptance Tests (FAT): 100% factory verification of reflectivity before shipping

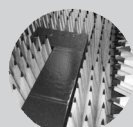
AN EXTENSIVE RANGE OF EMC & MICROWAVE ABSORBERS



Hybrids
SEA-HY & HYT



Weatherproof
SEA-WP



Walkway
SEA-WW



High power
SEA-HP



Microwave
SEA-PM & TM