



# Sonic-Shield™ Presents: Pyrotek's DECIDAMP® CLD

## DECIDAMP® CLD Constrained layer vibration damping pad

Decidamp® CLD is a constrained layer, viscoelastic damping material, designed to reduce structural vibration and sound transmission within light gauge materials. CLD was developed to meet market noise reduction requirements in the automotive, marine, industrial and OEM markets.

To achieve this high-performance, the Pyrotek engineering team developed a product that thermally bonds three layers: a rigid outer metal layer, a viscoelastic membrane and a high-tack adhesive layer, hence the name CLD (Constrained Layer Damping).

The product achieves the highest fire rating, complying with International Marine Organization standards for low spread of flame, as well as British standards, achieving Class "O".

Vibration is reduced by allowing the viscoelastic layer to flex, which creates shear strains between two rigid substrates, hence noise-creating energy is lost.

Lightweight panel constructions such as sheet metal (steel, alloy, tin, etc.) and rigid plastics (ABS and FRP, etc.) can easily transmit noise when vibrational energy is introduced to the structure. By applying CLD to lightweight structures, the damping of the construction will increase, therefore lowering radiated noise (vibration) and improving the transmission loss.

Decidamp® materials contain no ozone-depleting substances and complies with European and Australian standards for Volatile Organic Compound (VOC) emissions. No ozone-depleting substances are generated during manufacture.

### SPECIFICATIONS

Color	Silver
Packaging	Sheet sizes: 1000 mm x 1300 mm 500 mm x 1300 mm Custom depending on MOQ



### applications

- Most effective when applied to lightweight panels and steel substrates of up to 2 mm, aluminum substrates up to 4 mm and FRP (solid) up to 6 mm thick.
- Automotive floors, firewalls, doors, ceiling and trunk panels.
- Marine vessels: bulkheads, deck heads and hull construction.
- Generators, compressor covers and machine housing guards.
- Metal air-conditioning ducts and compressor housings.
- Laundry and garbage chutes, hoppers, lids and bins.
- Whitegoods and under sink bowls

### Features

- Free from lead, odor-producing oils and bitumen.
- Performance across a broad temperature range.
- Lightweight and easy to handle.
- Easy to install, high-tack acrylic adhesive backing, simply peel and apply pressure to position.
- Easily conforms to irregular surfaces without the use of heat guns.
- Remains flexible, does not become brittle.
- Resistant to weather and UV light.
- Available in various weights, widths and roll lengths.
- Complies with UL94 HF-1, IMO 653.16 low spread of flame, and British Standards 476.6/7-Class "O".

For other product information, technical assistance or ordering, please call Sonic-Shield at 888-769-0766 or on-line at [www.sonic-shield.com](http://www.sonic-shield.com)



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## PRODUCT SPECIFICATIONS

Thickness (mm)	Sheet sizes (mm)	Weight (kg/m <sup>2</sup> )	Peel strength (180°/ Stainless Steel) (N/25 mm) AFERA 4001	Operating temperature range (°C)
1.3	1000 x 1300 500 x 1300	2.5	>24	-10 to 100 (Continuous) -10 to 120 (Intermittent)

Tolerances: Length: -0/+50mm; Width: -0/+5mm; Thickness: +/- 0.5mm; Weight: -0 /+10%

## MATERIAL PROPERTIES

Test method	Property	Report No.	Results
IMO FTP Part 5	Surface flammability	327545	Complies for Bulkhead, walls and ceiling linings.
IMO FTP Annex 2	Smoke and toxicity	327545	
MED B	EC Type Certificate (Module B) for Marine Equipment Directive	164.112/1121/WCL MED0325TE	
MED D	EC Type Certificate (Module D) for Marine Equipment Directive	MEDD000000K	Complies. WHEELMARK
DNV Type approval	Type approval certification	F21138	Complies to DNV GL Offshore Standards, SOLAS & recognized as suitable for use by Transport Canada.
BS 476 part 6	Fire Propagation	315528	Complies with Class 0 Summary
BS 476 part 7	Surface spread of flame	315529	
UL94	Flammability of plastic materials	03317AC2	HF-1
FMVSS-302	Flammability of interior materials	03317AC1	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles

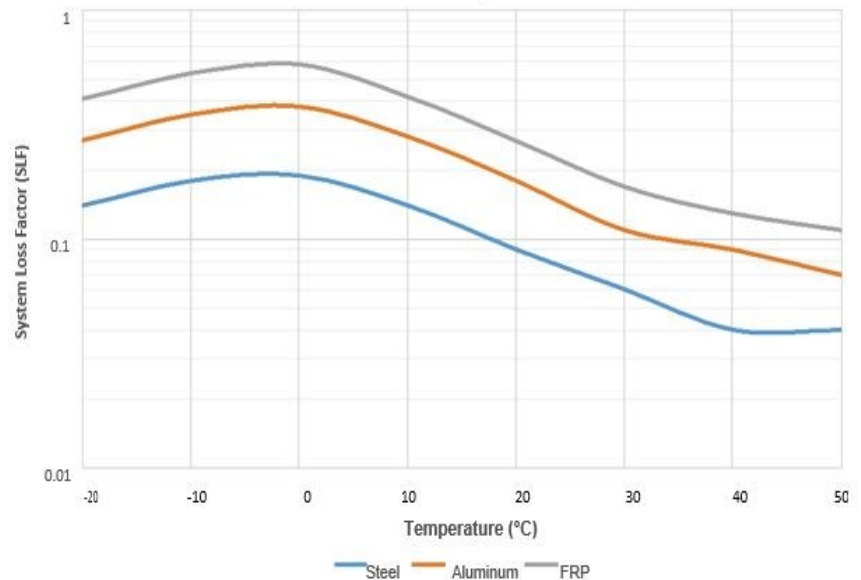
## ACOUSTIC PERFORMANCE

System Loss Factor			
Temperatures (°C)	Steel	Aluminum	FRP
-20	0.14	0.27	0.41
-10	0.18	0.35	0.53
0	0.19	0.38	0.58
10	0.14	0.28	0.42
20	0.09	0.18	0.27
30	0.06	0.11	0.17
40	0.04	0.09	0.13
50	0.04	0.07	0.11

System loss factor is a dimensionless figure representing how well a particular system is damped. Standard ASTM E796/ISO 6721-3 is used to test for system loss factor. A system is a combination of the substrate, be it steel, aluminum or fiberglass and the damping material itself. System loss factor is system specific, hence the composition of the tested system needs to be provided. Note: the system loss factor data for aluminum and FRP is predicted based upon theory.

Report No. 35412BD REV2

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