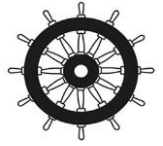


Document Nr. : TDS-01
 Issue Date : 01.FEB.2023
 Revision Nr. : 01
 Revision Date : 09 FEB 2024



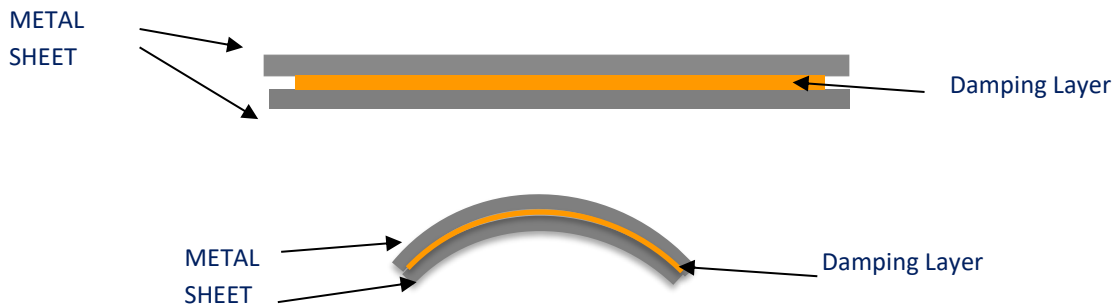
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NDS® COMPOSITE PANEL (STEEL & ALUMINIUM)

Description :

NDS® Composite Panel is a fully damped steel composite panel consists of two outer layers of steel or aluminum laminated together using a layer of a viscoelastic inner layer. Viscoelastic interlayer functions to damp structure-borne noises and vibrations.

NDS® Composite Panel provides a significant vibration damping capacity in comparison to a normal metal sheet. The high loss factors make it very well suited for e.g. ceilings, walls and even floor systems. The system is based on the principal of sandwich anti-drumming with a constrained layer. When the NDS® Composite Panel starts to vibrate, the viscoelastic layer transforms vibration into thermal energy.



Acoustic Properties :

While standard viscoelastic materials such as acrylic and rubber based adhesives shows damping performance capabilities at very narrow temperature ranges, viscoelastic layer used by NDS® demonstrates excellent performance at low, room and high temperatures intervals. Typical acoustic performance depicted below figure. Continuous operating temperature is -50 C to 150 C.

Table 1: Average measured loss factor of tested panels

Panel no.	Description	Average loss factor (50 Hz – 1.25 kHz)
	Aluminium	
11	NDS composite panel aluminium	0.035
	Steel	
12	NDS composite panel steel	0.035



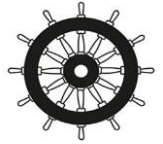
 Intersona bv
 noise and vibration consultants

NOISE DAMPING SOLUTIONS LTD.STI

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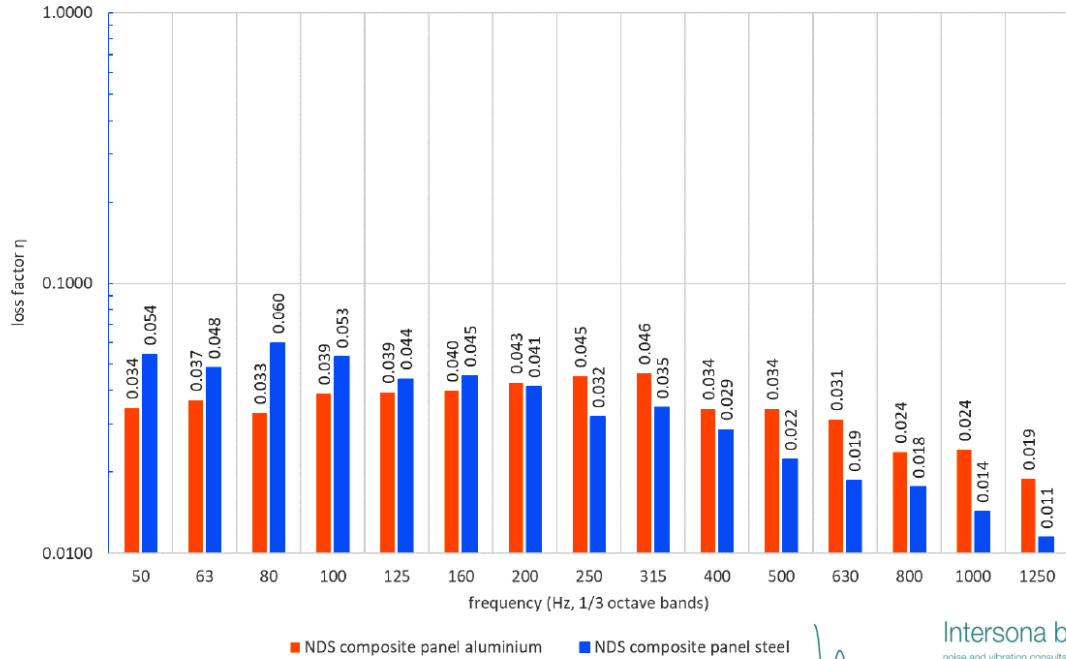
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Figure 2: loss factor NDS composite panels @ 19 °C



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noise and vibration consultants

Technical Data :

NDS® Properties

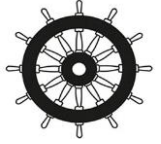
Material	Aluminum , Steel , Stainless steels , Galvanized steel
Dimensions	1000mm. x 2000 mm. Other dimensions are available on request.
Thickness	1.3 mm. , 2.1 mm. , 3.1 mm. , 4.1 mm. (STEEL) (+ 50µm). 2.1 mm. , 4.1mm. , 6.1 mm. (ALUMINIUM) (+ 50µm). Custom NDS thicknesses are available on request. (thickness of viscoelastic inner layer : 50 µm - 150 µm) .
Coating/Color	Plain, coil coating in RAL colors is available on request
Density	7850 kg/m3 (Steel) 2710 kg/m3 (Aluminum)

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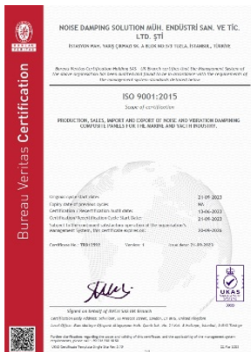
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Applications :

-  Engine rooms
-  Enclosures for machinery, generator etc.
-  Air ducts
-  Automotive oil sumps, panels
-  Acoustic wall panels
-  Acoustic hoods and chutes
-  HVAC equipment

Features :

-  Provides damping structure-borne sound at minimum thickness.
-  Replaces existing sheet metal.
-  Saves weight and thickness for damping noise.
-  Available in Ral colors by coil coating.
-  Can be operated continuously at broad temperature range of -50 to 150 °C .



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