



NDS COMPOSITE PANEL (STEEL and ALU)

Welcome to Noise Damped Steels

Vizyon Ltd.Co, manufactures and supplies highly damped materials, complete kits and components that solve a very wide range of noise and vibration control problems at very low cost. These include both OEM applications where our materials are built-in by design plus retro-fit materials and kits of parts to reduce noise on existing plant and machinery. 20 dB+ attenuation is often practical.

“nds” – performs like metal, sounds like rubber

Vizyon Manufacturing's sandwiched steel panels consist of two sheets of metal with a visco-elastic inner layer that results in a metal / plastic / metal (MPM) panel. These acoustically designed panels help reduce noise and vibration by damping structure-borne noise, insulating against air borne sounds, and damping inherent vibrations. Using the “constrained layer” principle, the function of the viscoelastic interlayer is to damp disturbing structure borne sound.

Sound damped metal sheets are available in a wide range of thickness and metals such as galvanised or stainless steel and aluminium (other materials by request) These damped sheets can then be used either during OEM component and product manufacturing or to remanufacture particular elements during retro-fit to provide dramatic reductions in noise and vibration.

Damped metal sheet – OEM manufacturing

Sound damped laminated sheet is available in a variety of thickness and sheet sizes. NDS can provide laminates with thicknesses ranging from 1mm to 8mm in cold rolled, hot rolled, stainless, aluminium and galvanised steels, including automotive grades. Sheets can be de-coiled to most lengths.

The most commonly used sheet sizes are 2m x 1m, 2.5m x 1.25m and 3m x 1.5m. However, we can also provide sheets in requested sizes and thicknesses.

In a surprising number of cases, although you might assume that the noise from HVAC and other fan systems is always dominated by airborne sound, structural vibration from panels, frame or other elements can be major noise contributors. Where this is the case, sound damped steel or aluminium can provide a very simple and low-cost solution – either by replacing panels with highly damped, laminated metal versions or by using our retro-fit kits to damp existing elements. This is a rugged solution that has no effect on performance, access or maintenance

Joint profile corner profiles are supplied separately with the panels if requested.

Applications

- Engine rooms for high speed craft / vessels
- Machinery and equipment enclosures
- Compressor and generator set enclosures
- Acoustic hoods and chutes
- Conveyor systems
- Crushers / Granulators
- Coin counters
- Air conditioner casings
- Automotive sumps and panels
- Acoustic wall panels
- Acoustic doors

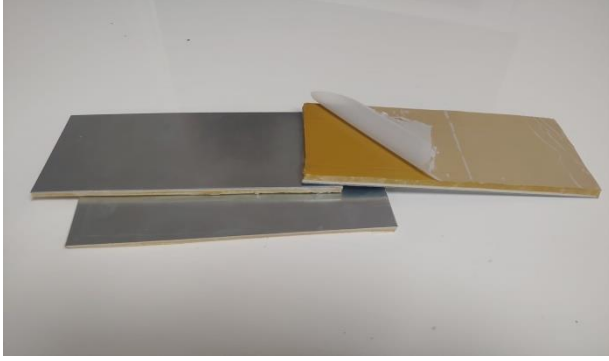
Features

- Maximum damping for minimum thickness
- Can be used as part of the “main structure”
- Cut, form and join just like plain aluminium
- Insulates against air-borne sound, impact and vibration
- Able to be painted & powder coated - best results from the manufacturer for powder coating
- Effective “in-structure damping”
- No need for external damping materials
- Reduces or eliminates need for use of external isolators
- Lightweight damped structures
- Broad temperature range (-40°C to 110°C)
- Able to fabricate using conventional machine shop tools

TECHNICAL SPECIFICATIONS OF NDS PANEL

THICKNESS mm/ mtrl.	CONFIGURATION mm	WEIGHT kg/m2	ELECTRO STATIC POWDER COATING
2.1mm NDS ALM.	1 + 0.1 + 1	6	Requested ral code or uncoated
3.7 NDS ALM.	1 + 1.7 + 1	9	Requested ral code or uncoated
4.5 NDS ALM.	1 + 2.5 + 1	11	Requested ral code or uncoated
1.3 NDS STEEL	0.6 + 0.1 + 0.6	10	Requested ral code or uncoated
2.9 NDS STEEL	0.6 + 1.7 + 0.6	14	Requested ral code or uncoated

NDS-DPF DampedPlateFix (STEEL and ALU)



Description

NDS-DPF is often applied as an anti-drummer to amplify and soundproof horizontal and vertical surfaces, reducing the noise created by vibrations in machinery and structures.

NDS-DPF, viscoelastic heavy sound barrier is a special and innovative product that together with steel or aluminum creates a sandwich construction that achieves high loss factors over a wide temperature and frequency range. The noise level is greatly reduced as a result of structure-borne noise.

NDS-DPP, viscoelastic heavy layer is a special developed polyurethane polymer that combined with steel or aluminum forms a sandwich construction that achieves high loss factors in a wide temperature and frequency range. The noise level as a result of structure borne noise is greatly reduced.

The most commonly used sheet sizes are 200 x 100 mm, 200 x 200 mm and 250 x 100 mm. However, we can also provide sheets in requested sizes and thicknesses.

Application Details

Stick it to the steel with the help of a mastic. It can be applied to an area of 7 m2 with an average tube. The recommended product is Dayson Extra. The surface must be dry, clean and free from oil.

TECHNICAL SPECIFICATIONS OF NDS-DPF DampedPlateFix

THICKNESS mm/ mtrl.	CONFIGURATION mm	WEIGHT kg/m2	ELECTRO STATIC POWDER COATING
6 mm NDS-DP ALM.	1 + 5	13	Requested ral code or uncoated
4.5mm NDS-DP ALM.	1 + 3.5	10	Requested ral code or uncoated
3.5 mm NDS-DP ALM.	1 + 2.5	8	Requested ral code or uncoated
4.5 mm NDS-DP STEEL	1 + 3.5	15	Requested ral code or uncoated
3.5 mm NDS-DP STEEL	1 + 2.5	13	Requested ral code or uncoated

Production and General Center

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SILENCE FOR SAFETY AND COMFORD