

SilenTile®



ISTITUTO
GIORDANO
Qualità al Plurale.



0407

Featured Properties

- Excellent acoustic performance in low frequencies i.e. 60-100 MHz
- The lightest and most effective damping performance
- Fast and easy application, just peel and stick on
- For aluminium, steel, fibre-reinforced plastic, and carbon composite surfaces
- Operation temperature range of -20 C° to 120 C°
- SilenTile® HX-A, Aluminium
for aluminium, fibre-reinforced plastic, and carbon composite surfaces
- SilenTile® HX-S, Steel
for steel surfaces
- SilenTile® HX-F, Fibre-reinforced plastic
for fibre-reinforced plastic, and carbon composite surface
- Nautical applications
damping of hull, bulkhead, and deck
- Automotive applications
damping of body panels such as doors, roof, fenders and truck

SilenTile® HX

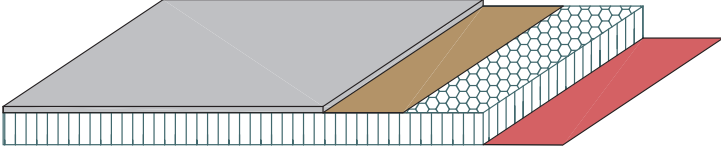
SilenTile® HX is a multi-layer constraint type, structure borne noise and vibration damping material, designed to reduce the vibrations and can realise easiness of processing and a low cost at the same time, in aluminium, steel, fibre-reinforced plastics, and carbon composite surfaces.

Using the latest polymer alloy technology SilenTile® HX has a unique high viscous damping and isolation properties over a wide temperature range of -20 C° to 120 C°. The self-adhesive technology provides the ease of installation and enables the product to withstand temperatures up to 120 C° without delaminating from the substrate (short term exposure only). In addition, SilenTile® HX has excellent adhesion to primed steel, lacquered steel, aluminium, and low surface energy substrates such as polypropylene, PVC and polyethylene.

SilenTile® HX has a wide range of application area, suitable for nautical applications e.g. damping of hull, bulkhead, and deck; and for automotive applications such as damping of body panels e.g. doors, roof, fenders, and truck.

Constraint Sheet

0.5mm Aluminium **SilenTile® HX-A** or
0.5mm Steel **SilenTile® HX-S**
or 1mm Fibre-Reinforced Plastic **SilenTile® HX-F**
(depending on the application surface and preference)



Viscoelastic Damping Glue

Honeycomb Core

3.5 mm core thickness fire-retardant Honeycomb

High Performance Pressure Sensitive Tape

Application

Surface preparation:

To obtain **optimum adhesion**, the bonding surfaces must be well **unified, clean, and dry**. Typical surface cleaning solvent is a 50:50 mixture of isopropyl alcohol (IPA) and water. For heavy oils or grease, a degreaser or solvent-based cleaner may be required and should be followed by cleaning with IPA/water.

Abrading a surface, followed by cleaning with IPA/water, can remove heavy dirt or oxidation, and can increase surface area to improve adhesion. Porous surfaces and fibered materials need to be sealed to provide a unified surface, and for unique materials such as glass and glass-like materials, copper and copper containing metals and plastics or rubber, special surface preparation may be required.

Application method:

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. **Firm application pressure** develops better adhesive contact and helps improve bond strength. Peel of the release liner and apply the tile onto the unified, clean, and dry substrate, apply firm hand pressure, or better use a roller to push the damping tile onto the substrate.

Minimum coverage: 70% of total area.

Recommended application temperature: above 10 C°.

Dimensions and weight

For **SilenTile® HX-A:** 4.8mm x 100mm x 200mm

Weight per unit area: 2.54 kg/m²

For **SilenTile® HX-S:** 4.8mm x 100mm x 200mm

Weight per unit area: 5.41 kg/m²

For **SilenTile® HX-F:** 5mm x 100mm x 200mm

Weight per unit area:

Custom dimensions are available on request.

(Max. dimensions 930mm x 2000mm)

Tests and Certificates

Certified according to the **IMO, 2010 FTP Code, Part 2, Smoke and Toxicity Test** where a material is required not to be capable of producing excessive quantities of smoke and toxic products or not to give rise to toxic hazards at elevated temperatures. Also certified according to the **IMO, 2010 FTP Code, Part 5, Surface Flammability Test** where a product is required to have a surface with low flame-spread characteristics, to be not readily ignitable.

