In TOPSILENT lead is toxic. Walls with sound-resistant foils that are lead-free, since or to improve the acoustic performance of plasterboard. How to acoustically insulate the air spaces of brick walls.

TOPSILENT is a high density foil that has the acoustic properties of a foil of lead even if it is completely lead-free. It acoustically insulates just like a foil of lead of the same weight, but is free from the typical toxicological problems of this metal. TOPSILENTBitex, in the standard version, is a foil with polypropylene textile coating on both faces, which consequently results to be a particularly efficient "gripper" to many types of adhesives, be they synthetic or with hydraulic bonding agents. TOPSILENTDuo is the version where one of the faces with the polypropylene finish is replaced by thick felt in TOPSILENTDuo can also be used successfully in the insulation of light wood floors, where it adds a high level of insulation against foot traffic noise and provides a contribution due to its weight. TOPSILENTBitex, TOPSILENTAdhesiv and TOPSILENTDuo can advantageously substitute plastering and internal rendering of the air space of traditional double walls. TOPSILENTDuo will be laid with the face covered with the non-woven felt face against the wall. Seeing as it is strongly resistant to water vapour, in the case of external walls, it will be laid on the warm face of the insulation fibre acting as a vapour barrier.

METHOD OF USE AND PRECAUTIONS

The foils of TOPSILENTBitex, TOPSILENT-Adhesiv and TOPSILENTDuo are used in the building industry to improve the acoustic properties of plasterboard panels of insulating false-walls and false-ceilings. They can also be used to line the inside of wooden shutter boxes to improve the acoustic insulation of external walls, or as shock-absorbers on metal sheet panels. TOPSILENTDuo can also be used successfully in the insulation of light wood floors, where it adds a high level of insulation against foot traffic noise and provides a contribution due to its weight. TOPSILENTBitex, TOPSILENTAdhesiv and TOPSILENTDuo can advantageously substitute plastering and internal rendering of the air space of traditional double walls. TOPSILENTDuo will be laid with the face covered with the non-woven felt face against the wall. Seeing as it is strongly resistant to water vapour, in the case of external walls, it will be laid on the warm face of the insulation fibre acting as a vapour barrier.

METHOD OF USE AND PRECAUTIONS

The foils can be glued to the plasterboard or wood panels with FONOCOLL on the coloured part of the polypropylene fabric. To glue on brick and concrete walls, use plaster-based glue GIPSCOLL (for securing to brick or concrete walls, you are recommended to apply the TOPSILENT foil using polypropylene dowels). They can be screwed to the metal frame or stapled with metal staples to a pre-existent panel. FONOCOLL is a glue product in water emulsion for the rapid gluing of TOPSILENTBitex and TOPSILENTDuo on plasterboard or wood panels in acoustic insulation systems. The glue is spread on the panel in a ratio of 150:200 g/m2. TOPSILENTDuo is applied in boxes with the face covered with felt facing the outside. If it is used as an acoustic insulation in floors, it is to be laid face down. The width of 120 cm is to be used for coupling on plasterboard panels, while the width of 100 cm is also available for other uses.

TOPSILENTAdhesiv reduces laying times and does not require the use of nails. Simply remove the silicone film and press the sheet on the surface to be insulated. Laying by simple self-adhesion is to be suspended when the temperature is below +5°C and/or aided by hot air or flame tools when the temperature is below +10°C and/or in particular conditions of damp.

ACOUSTIC INSULATION OF WALLS CERTIFIED BY “IEN G. FERRARIS”

CHARACTERISTICS OF WALL
• Total thickness 23 cm
• Weight 178 kg/m2

SOUNDPROOFING POWER
\[ R_w = 61.3 \text{ dB} \]
TRANSMITTANCE
\[ U = 0.5365 \text{ W/m}^2\text{K} \]

CERTIFICATION
"IEN G. Ferraris" n. 35561/07

CHARACTERISTICS OF WALL
• Total thickness 18 cm
• Weight 157 kg/m2

SOUNDPROOFING POWER
\[ R_w = 51.9 \text{ dB} \]
TRANSMITTANCE
\[ U = 1,3425 \text{ W/m}^2\text{K} \]

CERTIFICATION
"IEN G. Ferraris" n. 35561/08
### TECHNICAL DATA SHEETS

#### TOPSILENTDuo
- Mass per unit area: 5 kg/m²
- Roll size: 0.60 x 8.50 m
- Thickness: 9 mm
- Phono-insulating power (calculated value): 27 dB
- Thermal conductivity coefficient: \( \lambda = 0.170 \text{ W/mK} \)
- Critical frequency: >85.000 Hz
- Dynamic stiffness: >85.000 Hz
- Specific heat: 1.70 KJ/KgK
- Fire reaction class: Class 1

#### TOPSILENTBitex
- Mass per unit area: 4 kg/m²
- Roll size: 0.60 x 11.50 m
- Thickness: 3 mm
- Phono-insulating power (calculated value): 24 dB
- Thermal conductivity coefficient: \( \lambda = 0.170 \text{ W/mK} \)
- Critical frequency: >85.000 Hz
- Dynamic stiffness: >85.000 Hz
- Specific heat: 1.70 KJ/KgK
- Fire reaction class: Class 1

#### TOPSILENTAdhesiv
- Mass per unit area: 5 kg/m²
- Roll size: 1.20 x 8.50 m
- Thickness: 4 mm
- Phono-insulating power (calculated value): 27 dB
- Thermal conductivity coefficient: \( \lambda = 0.170 \text{ W/mK} \)
- Critical frequency: >85.000 Hz
- Dynamic stiffness: >85.000 Hz
- Specific heat: 1.70 KJ/KgK
- Fire reaction class: Class 1

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#### FREQUENCY ANALYSIS OF THE SOUND-INSULATING POWER

<table>
<thead>
<tr>
<th>f [Hz]</th>
<th>R [dB]</th>
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<tbody>
<tr>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>125</td>
</tr>
<tr>
<td>5</td>
<td>160</td>
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<tr>
<td>5</td>
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<td>1000</td>
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<tr>
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<tr>
<td>3150</td>
<td>41,4456</td>
</tr>
</tbody>
</table>

From what is expressed through the application of this law, one can see that the soundproofing power of the sample material is measured in 1 m² and this does not guarantee the repeatability of the results in equivalent systems.

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**Certifications**

- **TOPSILENTDuo**: Class 1
- **TOPSILENTBitex**: Class 1
- **TOPSILENTAdhesiv**: Class 1

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**ANIT Associated**

**GBC Italia** Associated

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**For any further information or advice on particular applications, contact our technical office. In order to correctly use our products, refer to INDEX technical specifications.**

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**Acoustic and thermal insulation for buildings**