

Noise is no longer a problem



with

SILENT-E



DEFINING THE PROBLEM

Today, more than ever, comfort in your home means reducing noise to ensure peaceful nights and rest. The sound of footsteps on upper floors is undoubtedly one of the most annoying problems. Noise pollution plays an increasingly important role for the value of your home; studies and statistical surveys have demonstrated that buildings with no sound protection depreciate by 10-15 %.



To meet the new requirements of homes, CASALI's research has led to the development of a new family of product to reduce the sound of footsteps. **SILENT-E**

SILEN

SOLUTION

"SILENT-E is a range of products developed for floating floors and together with a suitably designed system notably reduces the sound of footsteps on floor levels and trafficable coverings.

The material is supplied in rolls and consists of a waterproofing elastic layer coupled to an open cell polyester felt layer.

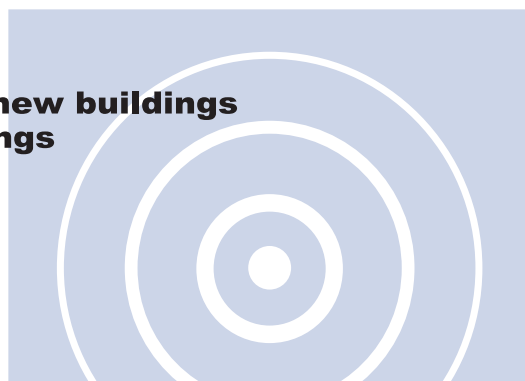
The special compound and non woven polyester are formulated to reduce the sound of footsteps, by dissipating acoustic energy as heat. Thanks to the plasticity of the elastic compound the membrane may be used even at very low temperatures.

The waterproofing layer not only protects the sound resilient element from mechanical stress when the cement slab is cast, but also protects the system from water infiltration.

The smooth polyethylene sheet top finish ensures simple, fast and clean laying."

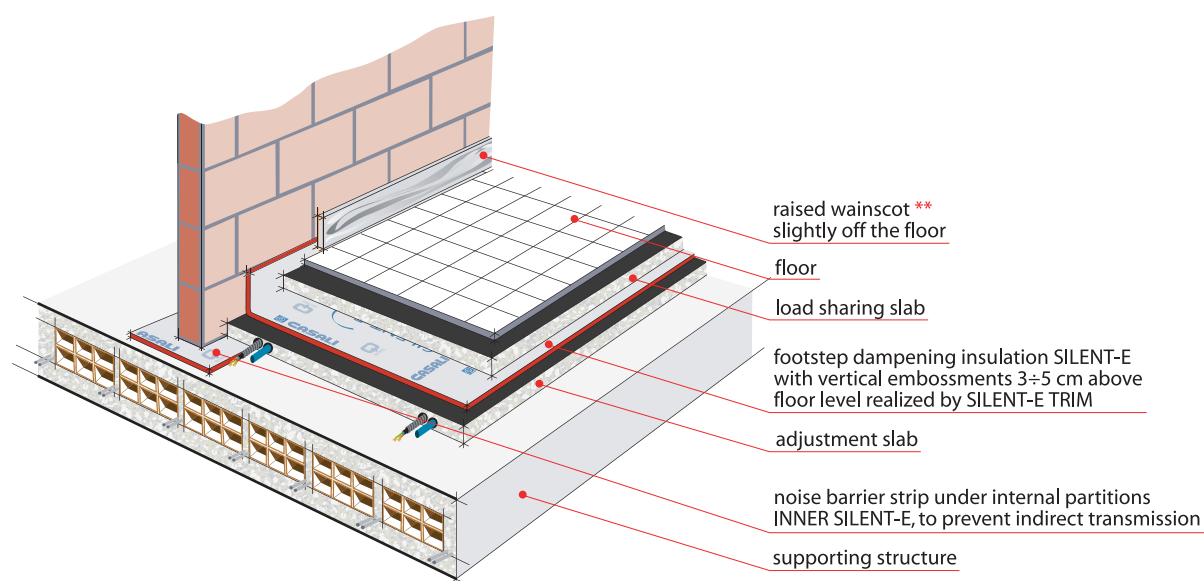
USES OF SILENT-E

1. **Acoustic insulation of floating floors in new buildings**
2. **Restoration of flooring in existing buildings**
3. **Trafficable covering**

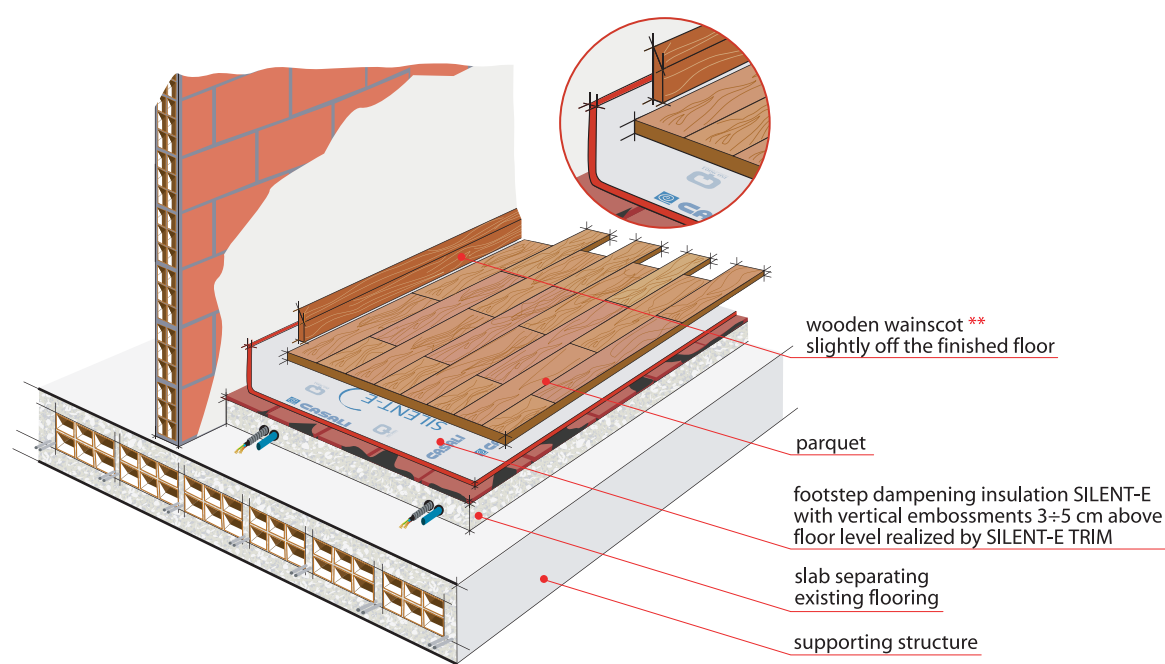


FLOATING FLOOR ON CLAY-CEMENT MIX FLOOR

New building



SILENT-E



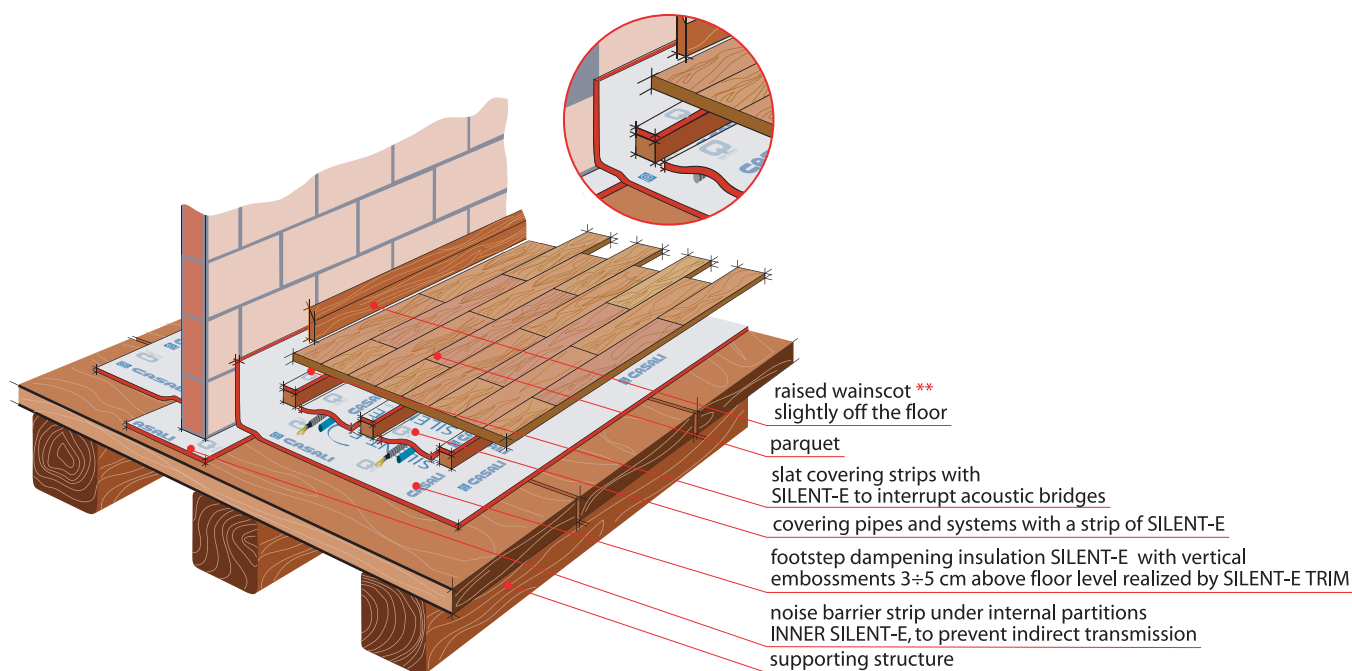
RESTORATION OF EXISTING FLOORING WITH PARQUET FINISH

Existing building

WOODEN FLOOR LEVELS

New Building

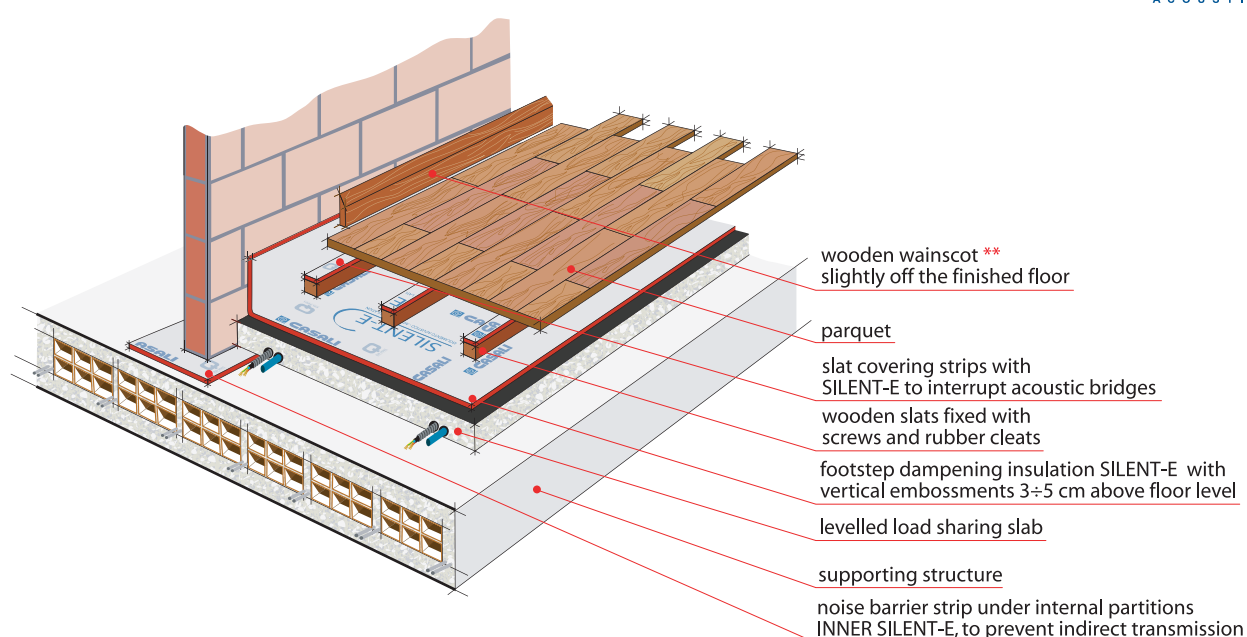
****The space between the wainscot and the floor must be sealed with a strip of rubbery material to ensure continuity of the profile and prevent dust and dirt from entering beneath the floor.**



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FLOATING FLOOR ON WOODEN SLATS WITH PARQUET FINISH

New building

SILENT-E

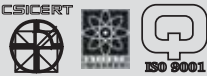
LAYING METHOD

- Internal partitions in new buildings must be installed on the noise barrier strip INNER SILENT-E to prevent indirect noise transmission.
- The L profile SILENT-E TRIM must be laid along the perimeter, over lapping by about 3+5 cm above the level of the finished floor.
- Lay the membrane with the non woven fabric facing the floor on a perfectly smooth laying surface with no sharp elements that might damage the insulating membrane
- Join sheets simply by overlapping the joint flaps (by about 5 cm.)
- After laying the membrane, the overlap is covered with wainscoting which is fixed to the perimeter wall raising it slightly from the floor to prevent the formation of acoustic bridges**.

CAUTION!

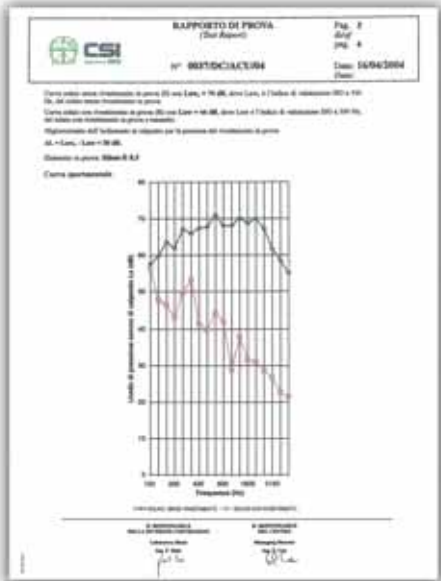
- a. In the case of R.C. laying surfaces cast on site, allow slab to cure thoroughly to prevent water used for casting to pond thus creating humidity beneath the floor.
- b. To stabilise the membrane during laying, reinforce the joints with adhesive tape; this will also prevent water used during casting from seeping into the insulating structure and damaging the acoustic properties.
- c. Ensure that membrane is perfectly smooth and level and that joints are well aligned. The vertical joints must be temporarily fixed to the walls until the slab has been cast and then trimmed before the wainscot is mounted.
- d. Avoid stretching and air sacs at corners.
- e. Do not tear or perforate the membrane when laying the slab reinforcement. In the case of heavy traffic at the work site, cover the insulating membrane by dry laying a layer of polyester high grammage.
- f. The membrane acts as a vapour barrier. This should be taken into account when designing the system on the supporting structure in order to avoid the formation of moisture on the floors beneath.

Data sheet



LABORATORY TEST	u.m.	SILENT-E PLUS	SILENT-E
Thickness	mm	about 9	about 7,5
Width			
- polyester non-woven fabric	cm	100	100
- selvage	cm	5	5
Tensile strength (UNI EN 12311-1)			
- maximum longitudinal load	N	700	500
- longitudinal elongation at break	%	35	30
- maximum transverse load	N	500	350
- transverse elongation at break	%	45	45
Coefficient of diffusion to water vapour (EN 1931) (waterproof layer)	μ	20,000	20,000
Waterproofing (EN 1928)	kPa	500	500
Dynamic stiffness s' (UNI EN 29052-1:1993)	MN/m ³	s' = 13	s' = 17
Coefficient of thermal conductivity (UNI 10351)			
- waterproofing layer	w/m°K	0,170	0,170
- polyester non-woven fabric		0,045	0,045
Compressibility ratio (EN 12431:2000)	mm	c'120s <1,2 c'300s <1,2	c'120s <1,3 c'300s <1,2
Sound insulation improvement (EN 12354-2) (load sharing slab: 100 Kg/m ²)	dB	30	27

The technical specifications refer to the average test results obtained during production and may be modified by Casali without prior notice. The values and tolerances comply with the provisions of UNI EN 13707, as applicable. The standard warranty covering the properties of the different types of membranes does not include their aesthetical value which may vary according to various environmental factors.

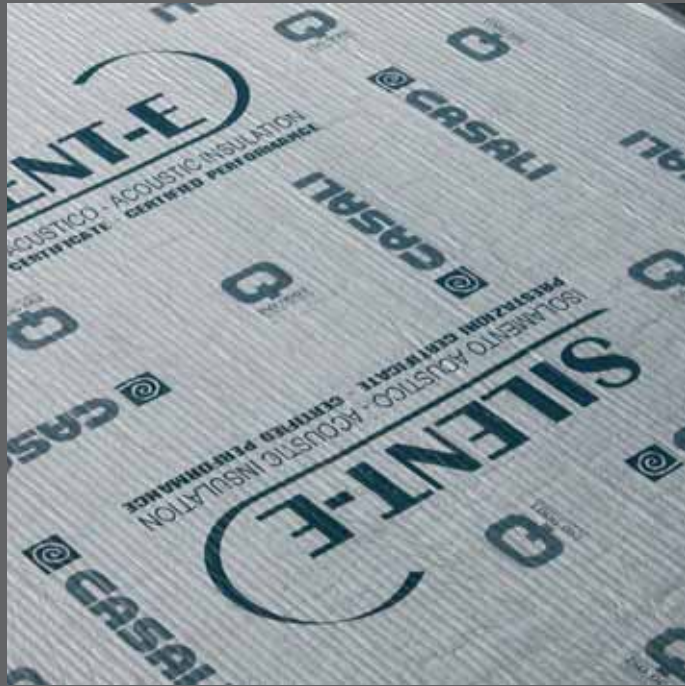




Inner Silent-e



Joint with Silent-e Trim



APPLICATION



1. Lay Silent-e TRIM strip



2. Unroll sheets



3. Lay the next roll



4. Stabilize the membrane by taping the joints



5. Lay the anti-shrinkage net of the regulating slab



6. Cast the regulation slab



7. Finished slab



8. Lay the finished floor



 **CASALI**
 DIVISIONE ACUSTICA
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