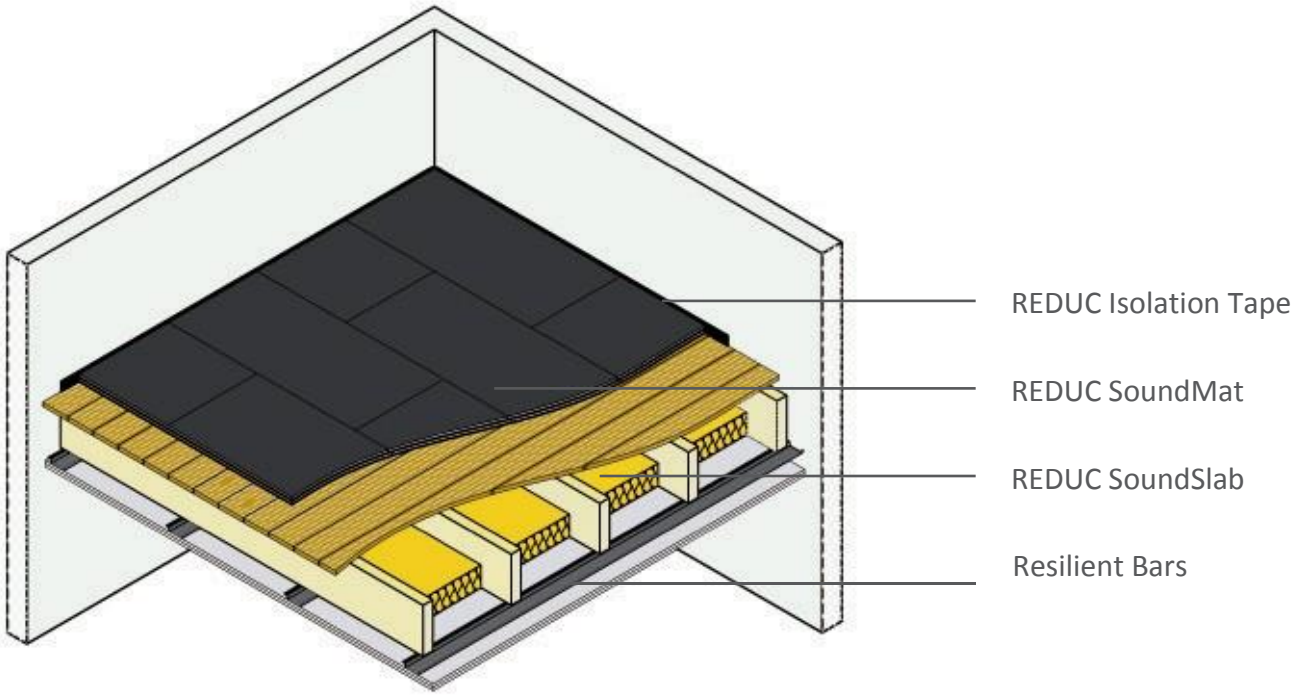
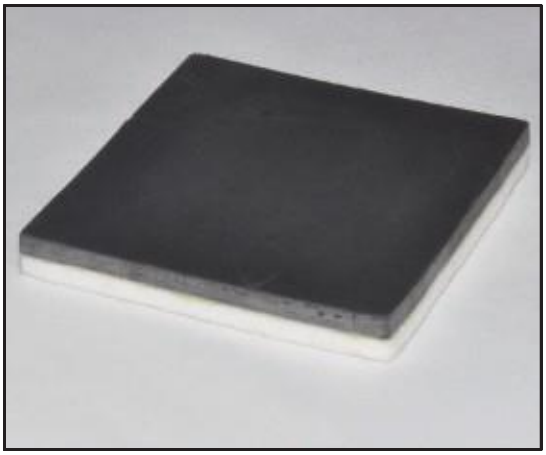
H&H Acoustic Technologies



REDUC® SoundMat

Extremely effective, easy to fit, acoustic underlay manufactured from a high density polymeric barrier, bonded to a resilient layer of acoustic felt. It is designed to reduce airborne sound and impact noise transmission through new and existing timber floors and will act as a supportive compensating layer of sound insulation when replacing carpets with timber floor finishes such as floated laminates or engineered wood.



Key Features and Benefits

- Extremely thin and versatile acoustic flooring
- High impact and good airborne noise reduction
- Minimal height increase for improvement projects
- Supportive low compression surface
- Ideal for floated decorative wood plank flooring
- Quick and easy to install
- Provided with full technical back up

REDUC® SoundMat

Applications

- Flats and apartments
- Hotels and hostels
- Sheltered housing
- Social housing
- Nursing and care homes
- Student accommodation

Operating Temperature

Suitable for use at normal building temperatures.

Compressions and Dynamic Loading

REDUC® SoundMat has been tested and comfortably exceeds the requirements of BSEN ISO 13934-1:1999 (tensile strength), BS 4939:1987 (static loading), BS 4052:1988 (compression after dynamic loading) and BS 5808 (resistance to breaking or cracking).

Technical Advice

It is recommended that all individual projects are discussed with H&H Acoustic Technologies. A team of highly qualified technical engineers and acoustic consultants are available to offer assistance and advice to clients, architects and contractors on all aspects of noise control to ensure design specifications and acoustic performance requirements are achieved. They can also undertake noise surveys and provide details of anticipated reverberation times pre and post installation.

Installation and Fixing

Ensure the floor to be covered is structurally sound, dry and dust free. Repair any damage to the floor and ensure that it is flat and level. In the majority of cases REDUC® SoundMat can be loose laid (white-felt facing down) with all edge joints taped using 50mm width Duck Cloth Tape, OR *fully bonded direct to the existing sub-floor. If the sub-floor is undulating then REDUC® SoundMat will mirror this effect; Levelling of the sub-floor with a bonded 6mm ply overlay may be required to ensure that the decorative floor finish is adequately supported. Plan the layout of the total floor area to reduce wastage. Avoid using small cut pieces in doorways and main traffic areas. Use a sharp bladed knife and a straight edge to cut REDUC® SoundMat and lay in a brick pattern with butted joints. Optimum acoustic performance is achieved when REDUC® SoundMat is fitted 2mm short of the wall edge with the 2mm gap filled & sealed using Acoustic Sealant. Impact performance on Timber: Soundmat can be fitted up to the wall or skirting and gap sealed as above.

*** To comply with any improvements related to Approved Document E of the Building Regulations SoundMat must be fully bonded to the sub-floor.**

Decorative Floor coverings:

Floated Wood Plank overlays: REDUC® SoundMat's superior firm surface is ideal for overlaying floated T&G or interlocking laminates and engineered wood flooring.

Adhesive bonded overlays: Parquet, vinyl, rubber, carpet etc will require a 6mm ply overlay bonded on top of the REDUC® SoundMat.

Carpet with gripper rods: Timber sub-floor: Place the gripper rod on top of Soundmat approx 5mm from the skirting board edge. To adequately secure the gripper through REDUC® SoundMat into the sub-floor either remove the gripper rod nails and replace with suitable (approx 30mm)countersunk screws or drill and countersink new holes in the gripper rod. Screw and secure through the REDUC® SoundMat surface into the sub-floor. Fit the REDUC® SoundMat 2mm short of the gripper edge and fill/seal using only Acoustic Sealant. Note: If carpet underlay is required then the gripper height may require increasing to suit using suitable timber strips beneath.

Stairs: Carpet: Fully Bond REDUC® SoundMat using Contact Adhesive, to both the treads and risers for optimum acoustic performance. Secure grippers with screws (as above).

Stair: Vinyl, rubber etc: Screw fix a suitable height timber batten (approx 18mm) to the nosing, then cut REDUC® SoundMat to suit tread dims and bond using a Contact Adhesive, then bond 6mm ply onto REDUC® SoundMat. Fit vinyl/decorative nosings.

Secret Nailed or Clip System Wood Floors: The acoustic performance will be reduced if nails are used that penetrate through the REDUC® SoundMat and/or contact the sub-floor. To maintain the acoustic integrity, it will be necessary to overlay REDUC® SoundMat with a slave layer of either a fully bonded layer or a floated tongue and grooved plywood. The plywood must not contact the skirting or wall. Ideally, butt the plywood up to H&H Acoustic Technologies' self-adhesive 5mm Acoustic Isolation Tape. The thickness of the plywood will be determined by the length of nails and the stability required. Contact a specialist flooring contractor or material supplier for their recommendations.

Thin vinyl, linoleum or rubber flooring etc: To avoid joint grinning and material creasing, overlay REDUC® SoundMat with at least a bonded 6mm ply layer.

Ceramic or stone tiling: Due the resilient nature of REDUC® SoundMat, tiling is not recommended. We suggest using REDUC® Foundation 35 or 39 direct to joists with a surface stress relieving membrane (Ditra Matting) for floor tiling projects.

Acoustic Performance

Laying REDUC® SoundMat onto an existing T&G timber sub-floor with 50mm x 225mm joists at 400mm centres and a lath and plaster or two layers of 12.5mm plasterboard on the underside to form the ceiling below, can reduce impact noise by more than 17dB and airborne noise passing through the floor by up to 6dB or more depending upon the floor and ceiling construction.

When sound testing is required under Approved Docuement E, we recommend you select a REDUC® timber acoustic floor that provides at least +3-5dB DnTw+Ctr higher than the improvement required.

Floor Construction	Airborne Sound		Impact Sound
	$D_{nT,W}$	$D_{nT,W} + C_{tr}$	$L_{nT,W}$
Existing untreated timber structure: 30mm lath and plaster ceiling in good condition or single layer of 12.5mm plasterboard direct fixed to the ceiling below with 22mm tongue and grooved flooring.	43 dB	35 dB	70 dB
Treated structure with lath and plaster ceiling: overlay the sub-floor with REDUC SoundMat and REDUC® SoundSlab 100mm between the joists.	49 dB	41 dB	49 dB
Treated structure: overlay the sub-floor with REDUC SoundMat and REDUC® SoundSlab 100mm between 225mm joists with 2 x 15mm Soundbloc plasterboards supported on Resilient Bars to the ceiling below.	51 dB	44 dB	46 dB

Packaging, Handling and Storage

REDUC® SoundMat is packed on non-returnable wooden pallets and should be stored inside and under cover in a dry, well-ventilated area. Mats should be laid flat and kept off the ground. Extreme care should be taken when handling to avoid damage.

Dimensions and Weight

Length:	1200mm
Width:	1000mm
Overall Thickness:	12mm
Weight Per Mat:	18.6kg
Weight Per m^2	15.5kg/m^2

Availability

Available through a national network of stockists. Further details available on request.

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