

# PhonoMat®

## Product Datasheet

**PhonoMat®** is a high performing composite matting that outshines most acoustic underlayment systems currently on the market, due to grade of materials used. It is designed to be installed simply and quickly as any conventional carpet underlay or pre plasterboard layer but with the added function of being acoustic. **PhonoMat®** is ideal for use in domestic applications where privacy and comfort are important. **PhonoMat®** provides the easiest and most convenient way to reduce airborne sound and impact noise transmission through new and existing floors and will act as a compensating layer of sound insulation when replacing carpets with hard floor finishes such as laminates, hardwood or ceramic tiles. **PhonoMat®** comes in three thicknesses and can be laid directly onto existing timber and concrete floors.

**PhonoMat®** is designed for use on timber and concrete floors in domestic and commercial applications to reduce airborne and impact noise passing through intermediate floors into the rooms below and to minimise the sound of footfall on stairs. It is suitable for use in offices, hotels, building extensions, renovations and loft conversions where there is a requirement to improve sound insulation within a property to help comply with building regulations or generally to reduce sound. Complies with **Part E** of Building Regulations.

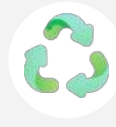
**High performance, versatile acoustic flooring system.**

Acoustic Ratings For:



PART E - PCT SOLUTION

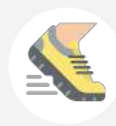
## Key Features



Recycled layers



Carpet can go straight on top



Superior impact noise reduction



Excellent airborne sound reduction



Quick and easy to install



Sourced and manufactured in the UK

Product	Airborne	Impact	Weight	Weight m2	Pallet Quantity
<b>PhonoMat® 7 Slimline</b> 1200 x 1000 x 9mm	50dB <i>(Expected)*</i>	37dB	7.7kg	6.42kg/m2	125
<b>PhonoMat® 12 Pro</b> 1200 x 1000 x 11mm	54dB	38dB	13.7kg	11.41kg/m2	50
<b>PhonoMat® 22 Pro Max</b> 1200 x 1000 x 15mm	61dB	40dB	25.7kg	21.42kg/m2	50

Values quoted are typical and based on the treatment being installed correctly and pre-completion tested (PCT). Performance figures shown are for indicative purposes only. For technical advice please contact Acuphon's technical support.



Concrete Slab

CS

PhonoStrip® SAB

Carpet

PhonoMat®

200mm  
Concrete SlabPhonoClip®  
and Furring Channel

x2 Layers PhonoBoard®

**Acoustic Performance**

Product	DnT,w Weighted airborne value	DnT,w + Ctr Weighted airborne value + Ctr	LnT,w Impact sound performance	ΔLw Impact noise improvement
PhonoMat® 7 Slimline	-	-	42dB	31dB
PhonoMat® 12	-	-	-	29dB
PhonoMat® 22 Pro Max	-	-	-	27dB

Results based on PhonoMat being laid onto a concrete platform with a suitable ceiling treatment (as shown) and all flanking paths removed. Performance figures shown are for indicative purposes only. For technical advice please contact Acuphon's technical support.

Steel Joist

SJ

PhonoStrip® SAB

Carpet

PhonoMat®

PhonoWool®  
MaxPhonoClip®  
and Furring Channel

x2 layers PhonoBoard®

**Acoustic Performance**

Product	DnT,w Weighted airborne value	DnT,w + Ctr Weighted airborne value + Ctr	LnT,w Impact sound performance	ΔLw Impact noise improvement
PhonoMat® 7 Slimline	-	-	-	
PhonoMat® 12	54dB	47dB	44dB	
PhonoMat® 22 Pro Max	61dB	53dB	46dB	

Results based on PhonoMat being laid onto a steel joist supported floor with a suitable ceiling treatment (as shown) and all flanking paths removed. Performance figures shown are for indicative purposes only. For technical advice please contact Acuphon's technical support.



Timber Joist With Clip

TC

Carpet

Existing Floor

Timber Joist

PhonoStrip® SAB

PhonoMat®

PhonoWool®  
Max

PhonoClip®  
and Furring Channel

x2 Layers PhonoBoard®

### Acoustic Performance

Product	DnT,w Weighted airborne value	DnT,w + Ctr Weighted airborne value + Ctr	LnT,w Impact sound performance	ΔLw Impact noise improvement
PhonoMat® 7 Slimline	-	-	37dB	
PhonoMat® 12	54dB	47dB	38dB	
PhonoMat® 22 Pro Max	61dB	53dB	40dB	

Results based on PhonoMat being laid onto an existing timber floor with a suitable ceiling treatment (as shown) and all flanking paths removed. Performance figures shown are for indicative purposes only. For technical advice please contact Acuphon's technical support.

Timber Joist

TJ

Carpet

Existing Floor

Timber Joist

PhonoStrip® SAB

PhonoMat®

PhonoWool®  
Max

### Acoustic Performance

Product	DnT,w Weighted airborne value	DnT,w + Ctr Weighted airborne value + Ctr	LnT,w Impact sound performance	ΔLw Impact noise improvement
PhonoMat® 7 Slimline	-	-	39dB	
PhonoMat® 12	49dB	44dB	41dB	
PhonoMat® 22 Pro Max	54dB	50dB	43dB	

Results based on PhonoMat being laid onto an existing timber floor with a standard plasterboard ceiling treatment and all flanking paths removed. Performance figures shown are for indicative purposes only. For technical advice please contact Acuphon's technical support.



## Fire Performance

The materials used in the manufacture of **PhonoMat®** are flame retardant. The foam is Combustion Modified and meets Schedule 1 Part 1 of Statutory Instrument 1324 Amendment 1989. The surface barrier layers are self extinguishing to FMVSS 302.

## Installation Guide

### Hessian-Backed Carpet Finishes, Fitted with Gripper (Domestic only)

**PhonoMat®** perimeter strips are typically nailed or glued around the perimeter of the room with the barrier layer facing downwards and the acoustic seal, compressed by two thirds, to the wall or skirting board. Carpet gripper rods are then nailed in place on top of the PhonoStrip® SAB then PhonoMat® sheets are tightly butted up to the perimeter detail, loose laid in brick bond pattern onto the floor. Care should be taken to ensure that no gaps occur between the **PhonoMat®** panels and the PhonoStrip® SAB or between the PhonoMat® sheets themselves. PhonoMat® 7 Slimline should be installed with the black barrier mat facing upwards.

### Laminate, Vinyl, Carpet Tile, Bonded Carpet Floor Finishes (Domestic and Commercial)

When installing PhonoMat® beneath laminate flooring, vinyl flooring, carpet tiles, or bonded carpet, it is necessary to install 9-12mm MDF or Plywood between the PhonoMat® and the floor finish. The use of 9-12mm MDF or Plywood improves stability for the floor finish and prevents problems due to point loading, carpet rucking, and joint damage to the floor finish. In the case of bonded carpet and carpet tile floor finishes the use of 9-12mm MDF or Plywood will also aid the installation by giving a stable surface to bond to. PhonoMat® should be bonded to the sub-floor in brick bond pattern using a suggested adhesive. PhonoMat® 7 Slimline should be installed with the black barrier mat facing upwards. Care should be taken that PhonoMat® panels are butted tight against the perimeter wall or skirting and that no gaps occur between the PhonoMat® panels themselves. 9-12mm MDF or Plywood should then be bonded to the top of PhonoMat® with a suggested adhesive.

The 9-12mm MDF or Plywood boards should be bonded to each other using a pva adhesive on the t&g joint, and any such joint should be a minimum of 50mm away from any PhonoMat® joint. An isolation gap of 5 to 10mm should be left between the wall and the 9-12mm MDF or Plywood to avoid sound transmission flanking into the structure. The isolation gap should be filled with sealant. The floor finish should then be installed on top of the 9-12mm MDF or Plywood as per the manufacturer's instructions. In areas where the floorcovering is returned, a timber fillet, the same thickness as the PhonoMat®, should be placed around the perimeter to create a solid edge. Please note that timber based products are prone to expansion and contraction, as such we recommend that expansion gaps are introduced across the 9-12mm MDF or Plywood, as well as at the edges, in large applications. Further details on expansion gaps can be found at the timber research and development association website: [www.trada.co.uk](http://www.trada.co.uk). If you have a large area to treat with 9-12mm MDF or Plywood, we recommend that you contact acuphon for advice.

**In no case should you nail or screw the PhonoMat® down.**



## Engineered Timber Floor Finishes

In our experience, there is no issue installing PhonoMat® 12 Pro or 22 Pro Max directly beneath engineered timber floors in domestic installations. The PhonoMat® should be installed as described in the 'Hessian backed carpet finishes, fitted with gripper section, but without the perimeter strip detail. The PhonoMat® should be butted tight up to the wall or skirting. As with all floating floor installations, no fixings should be allowed to penetrate the PhonoMat® and an expansion gap should be allowed between the timber floor and the perimeter wall and services. This should be filled with acoustic sealant or alternative flexible sealant. For confirmation on the suitability of any engineered timber floor for use with PhonoMat®, please check with the floor finish manufacturer prior to installation. If the floor manufacturer feels that the resilience of the PhonoMat® is excessive, or if the installation occurs anywhere other than a domestic environment, acuphon recommend that the timber floor should be supported by installing a layer of 9-12mm mdf or plywood bonded to the top of the PhonoMat®. In this situation the full instructions of the 'laminated, vinyl, carpet tile, bonded carpet floor finishes section should be followed. If required, acuphon will be happy to provide samples to the engineered timber floor manufacturer for test purposes. The density of our open cell resilient layer in all the PhonoMat® products is 144 kg/m<sup>3</sup>.

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### You may also require:



PhonoStrip® SAB



PhonoClip®



Scrim Tape



PhonoSeal®



PhonoBond®



PhonoClip® Resilient  
Bar