

SubPrimo

*Acoustic insulation for
timber & laminate flooring*

Uniclass L5395:N372	EPIC E485:Y45
CI/SfB (43)	T (P2)

subPrimo

**Total Party
Floor Solution**
Approved Document E Compliant



sound
reduction
systems

Manufacturers of Acoustic Insulation Products



Introduction

Sound Reduction Systems Ltd. (SRS) manufacture acoustic insulation and absorption products for use in domestic and commercial buildings. Over 25 years experience in the building acoustics industry ensures that our team of qualified acousticians can offer honest, practical advice and effective solutions to any acoustic challenge.

SRS have products and systems designed to reduce the transmission of sound through any part of a building. Please contact us should you require further information or advice.

SubPrimo Benefits

- ✔ Reduces impact noise of laminate, engineered and solid wood floor finishes.
- ✔ Reduces airborne noise transmission.
- ✔ Installed directly beneath floor finish.
- ✔ Easy and quick to install.
- ✔ Easy to cut and shape.
- ✔ Part of the **SRS Total Party Floor Solution** to meet Building Regulations Part E.

SubPrimo

SubPrimo is an acoustic underlay product, specifically designed for use beneath timber floor finishes such as laminate, engineered and solid wood.

The current trend of replacing carpet and underlay with timber flooring in flats and apartments can cause serious problems for downstairs neighbours, and many leases prohibit their installation without taking acoustic insulation into account. Within a single dwelling, sound insulation between, say, a bedroom and a sitting room can be a serious issue. SubPrimo offers the most effective method of improving the impact sound insulation of a timber floor.

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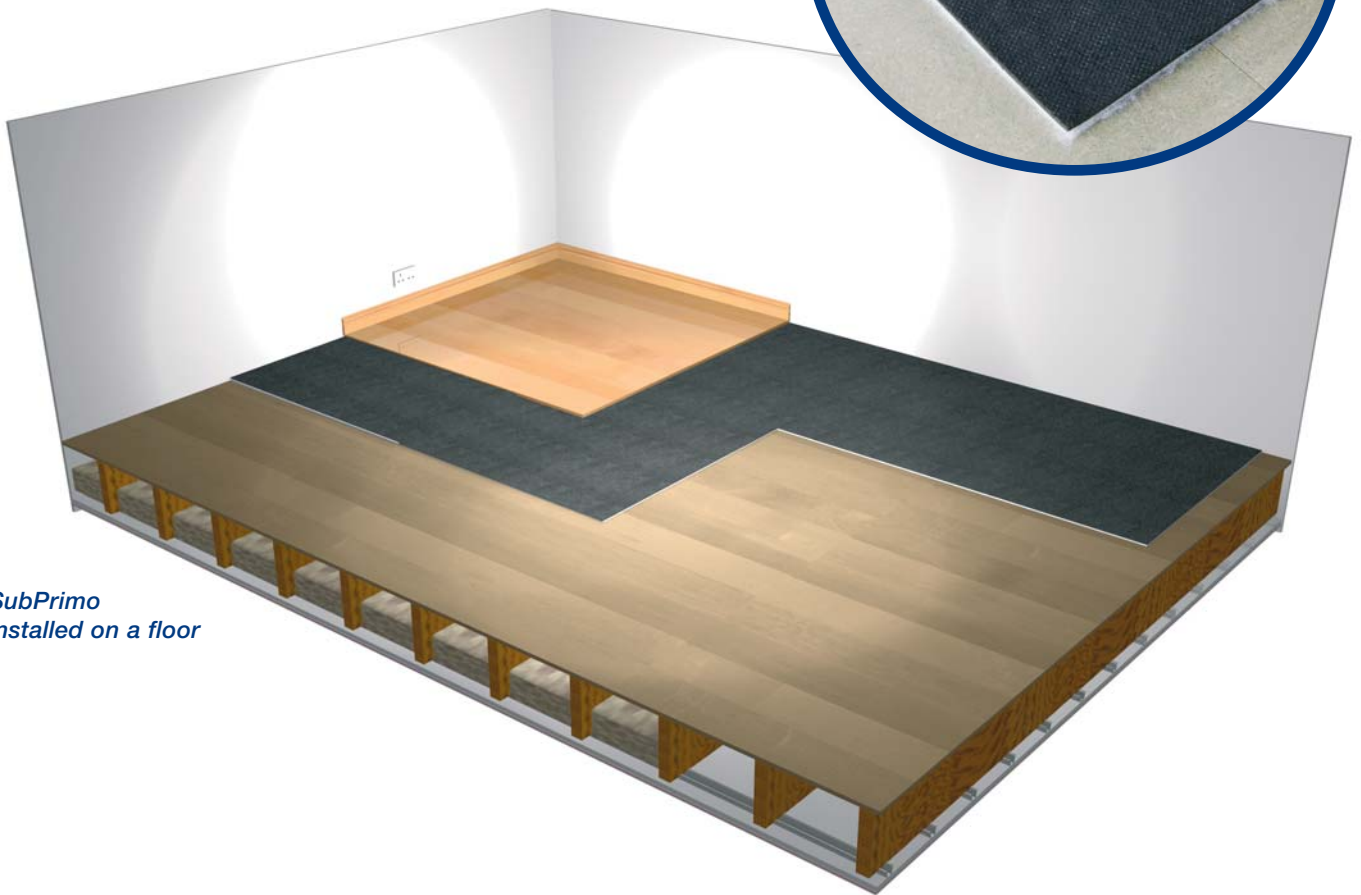
SubPrimo

Useful Contact Details:-

Technical and General Enquiries
 Tel/Fax: 01204 380074 / 380957
 Email: info@soundreduction.co.uk

SubPrimo Installation

SubPrimo is supplied in 1150 x 950 x 6mm sheets, and is simply loose laid onto the existing floor in a brick pattern. SubPrimo can easily be cut and shaped using a standard trimming knife. It is important to ensure that the SubPrimo is installed tight up to or, if possible, under the skirting and that no gaps occur between the sheets as they are installed.

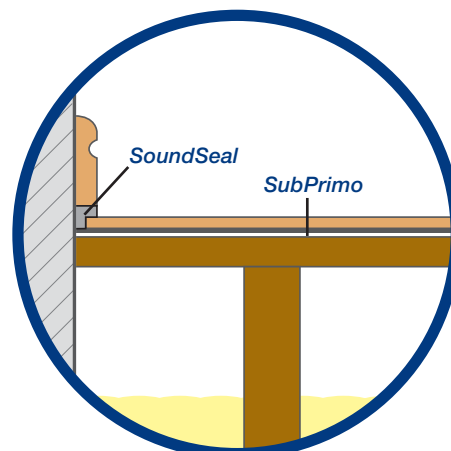


SubPrimo installed on a floor

The timber floor finish is then installed directly onto the SubPrimo, as with conventional underlays.

It is important to leave an expansion gap between any timber floor finish and the perimeter. Direct contact between the floor finish and the beading or skirting should be avoided. The skirting board should sit on a length of SRS Soundseal acoustic sealing gasket - grade 15 2/10. The Soundseal will help isolate the floor from the wall construction.

As with all floating floor installations, no fixings should be allowed to penetrate the resilient layer.



Cross section of SubPrimo beneath skirting

SubPrimo - Between separate dwellings

The Benefits

- ✓ Conforms to Building Regulations Approved Document E.
- ✓ 1 Hour Fire Rated.
- ✓ High airborne & impact sound insulation.
- ✓ Suitable for installing timber floor finishes above.
- ✓ Easy to install.
- ✓ Perfect for New Build and Conversions.
- ✓ Total acoustic and fire solution.

Total Party Floor Solution

Due to the popularity of timber floor finishes in flats and apartments, and the need to meet the acoustic standards of Approved Document E, SRS have designed a **'Total Party Floor Solution'** that will enable clients to install any floating timber floor finish whilst maintaining a high level of acoustic insulation. The SRS **'Total Party Floor Solution'** requires SubPrimo to be installed onto the floors and SRS acoustic building board, Maxiboard, to be used in the ceiling construction.

The system exceeds the requirements of Building Regulations Approved Document E, and also achieves a 1hr fire rating. By installing SubPrimo onto the floor above, the **Total Party Floor Solution** is ready to accept any timber floor finish and still give good performance on impact noise.

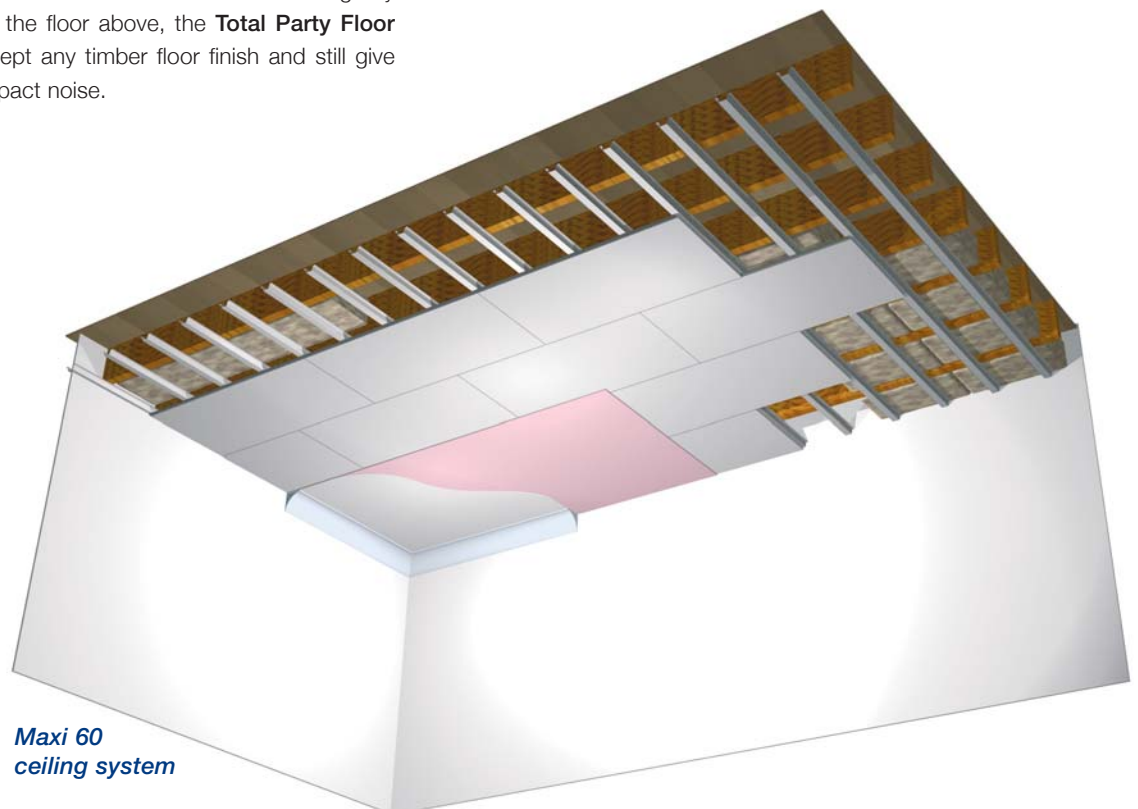
Maxi 60 Ceiling Installation

To install the Maxi 60 ceiling, 100mm thick 45kg/m³ mineral fibre slabs are first friction fitted between the joists. SRS resilient bars are then fixed to span the timber joists across the full width of ceiling, using 70mm x 5mm wood screws. They are fitted at the edges of the ceiling and at a maximum of 300mm centres in between. The Maxiboard panels are fixed into the resilient bars using 30mm x 3.9mm Maxi screws. The panels are secured in a staggered half panel overlap. The screw fixings are at a maximum of 300mm centres, positioned 20mm from the edges of each board and at the midpoint, ensuring the screws are fixed into the resilient bars above, and do not touch the timber joists.

A bead of Gripfix is applied to each panel's shiplap edges prior to installation. The shiplap edge adjacent to any perimeter should be removed, and a bead of SRS acoustic sealant applied to the edge. It is essential that no gaps occur between the panels. 12.5mm fire rated plasterboards are then fixed through the Maxiboard and into the resilient bars using 50mm drywall screws, again ensuring the fixing does not touch the joist.

Please see page 7 for finishing and plastering details.

The SubPrimo is installed onto the floor above as per previous instructions.



Maxi 60 ceiling system

SubPrimo - Total Party Floor Solution

Building Regulations Part E – Resistance to the Passage of Sound

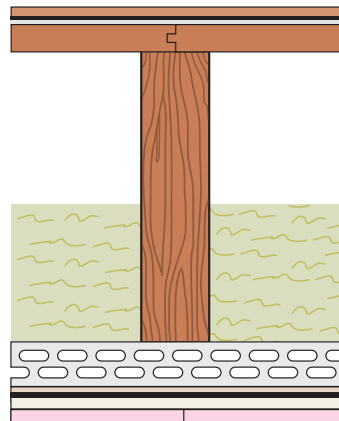
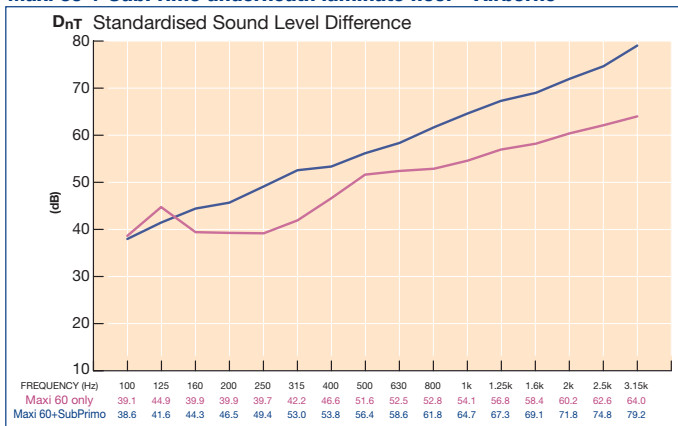
Acoustic noise control in buildings for residential use is regulated using Approved Document E. This Building Regulation now applies to any kind of building used as a dwelling, including houses and apartments; and rooms for residential purposes, such as students and nurses accommodation, nursing homes and hotels. It also applies to dwellings that have been created as a result of a conversion or material change of use.

The aim of the regulation is to protect residents from the noise of activities in other rooms or adjoining properties. This has been highlighted as a major cause of tension between residents. The acoustic requirements are shown below in Table 1.

Table 1: Dwelling-houses and flats - performance standards for separating floors, and stairs that have a separating function.

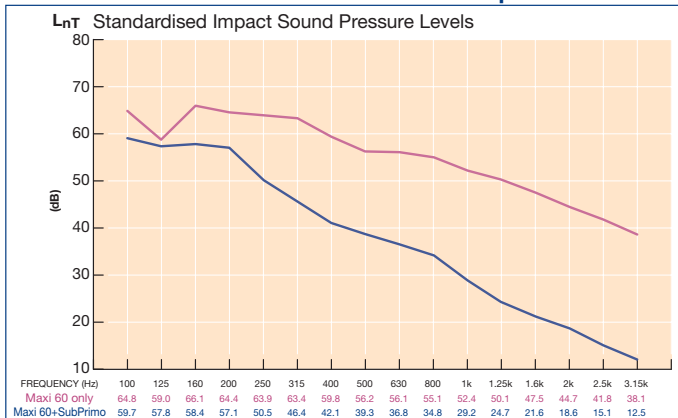
	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB (Minimum Values)	Impact sound insulation $L'_{nT,w}$ dB (Maximum Values)
Purpose built dwelling-houses or flats		
Floors and Stairs	45	62
Dwelling-houses or flats formed by material change of use		
Floors and Stairs	43	64

Maxi 60 + SubPrimo underneath laminate floor - Airborne



SubPrimo installed on the floor above a Maxi 60 ceiling comfortably complies with the Building Regulations Approved Document E - even with a timber floor installed as a floor finish.

Maxi 60 + SubPrimo underneath laminate floor - Impact



Acoustic tests on SubPrimo installed above a Maxiboard ceiling carried out independently by Noise Control Services, 17/02/06, in accordance with ISO 140 parts 4 and 7. Rated to ISO 717 parts 1 and 2. Test reference numbers: NCS 20610/1-4.

	Total Party Floor Solution		
	Airborne $D_{nT,w}$	Airborne $D_{nT,w} + C_{tr}$ (dB)	Impact $L'_{nT,w}$ (dB)
Maxi 60 & SubPrimo	60	54	49
Maxi 60 only	53	48	57

SubPrimo - Within dwellings

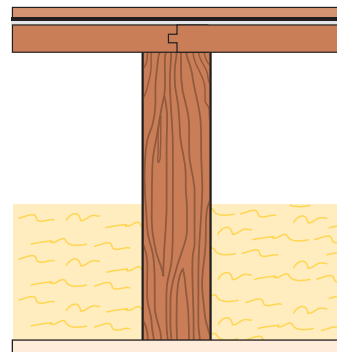
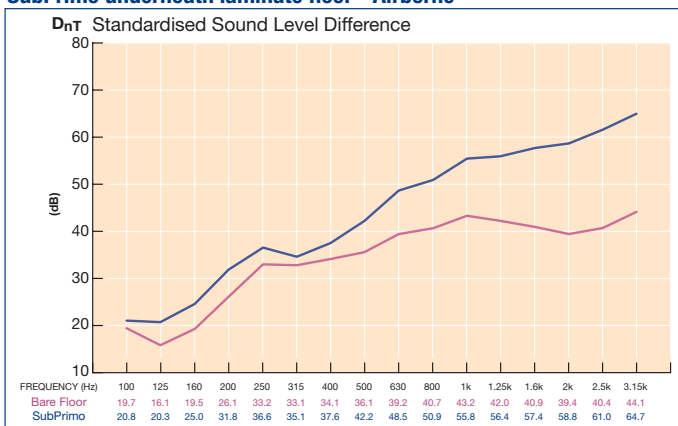
Building Regulations Approved Document E - Resistance to the passage of sound

The building regulations stipulate that there must be a certain level of acoustic separation between rooms within a dwelling. Table 2 displays the acoustic requirements.

Table 2: Laboratory values for new internal walls and floors within:
dwelling houses, flats and rooms for residential purposes, whether purpose-built or formed by material change of use.

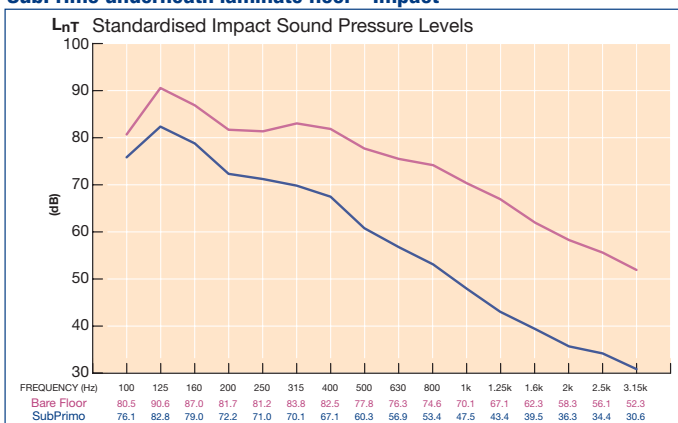
Airborne sound insulation R_w dB (Minimum values)	
Floors	40

SubPrimo underneath laminate floor - Airborne



SubPrimo improves the impact noise of a typical laminate floor finish by 10dB compared to the bare floor structure. This is a significant improvement but does not represent the total elimination of impact noise.

SubPrimo underneath laminate floor - Impact



Test construction: 8mm laminate on SubPrimo underlay, on 18mm chipboard deck, 225 x 50mm timber joists with 100mm mineral fibre infill, 12.5mm plasterboard ceiling, fixed direct to joists.

	SubPrimo			Impact $L'_{nT,w}$ (dB)
	Airborne $D_{nT,w}$	R'_w (dB)	$D_{nT,w} + C_{tr}$ (dB)	
Bare floor	38	39	31	78
With laminate and SubPrimo	43	44	36	68

Acoustic tests on SubPrimo carried out independently by Noise Control Services, 12/04/06, in accordance with ISO 140 parts 4 and 7. Rated to ISO 717 parts 1 and 2. Test reference numbers: NCS 40603/1-4.

subPrimo

Dimensions:

Size = 1150 x 950mm (nominal)
 Thickness = 6mm
 Weight = 4kg/m²

Cutting: Best cut using a sharp trimming knife. Score the surface, then run through with the knife several times to avoid tearing. When shaping, use large scissors or tin snips.

Storage: Must be laid flat and kept dry.

maxiboard

Dimensions:

Size = 1200 x 600mm (nominal)
 Thickness = 17mm
 Weight = 24kg/m²

Finishing & Plastering Maxiboard

Maxi 60 ceiling: 12.5mm fire rated plasterboard must be fitted over the Maxiboard and finished according to manufacturer's instructions.

Recessed Lighting

SRS total party floor has also been tested with recessed lights fitted to the ceiling, with a loss of performance of only 1-2dB. Full details are contained in the test report NCS20610. Please ask for a copy if required.

Acoustic Walls

Maxiboard can also be used on walls instead of plasterboard to introduce improved sound insulation between rooms. Maxiboard can be used to meet the **Building Regulations Approved Document E** for separating wall constructions as well as in domestic applications for people disturbed by noise. Please contact SRS Ltd by tel: **01204 380074**, email **info@soundreduction.co.uk** or visit **www.soundreduction.co.uk** for further details on Maxiboard applied to walls.

SRS Ltd manufacture a wide range of acoustic insulation materials capable of treating most acoustic insulation problems. Our technical team are happy to answer any questions you may have.

MAXI 60 CEILING SYSTEM

Fire resistance: BS EN 1365-2:2000

Test ref: WARRES 127725

Loadbearing capacity 86 min
 Integrity 85 min
 Insulation 85 min

Fire properties: Fire propagation BS 476:Part 6: 1989 Class 0

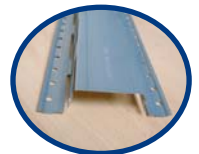
Surface spread of flame: BS 476:Part 7: 1997 Class 1

Cutting: Best cut using circular saw with dust extraction fitted. Can also be cut using a jigsaw or hand saw fixed with a heavy duty blade.

Storage: Must be laid flat and kept dry. Maxiboard should only be stored on site if the building has been sealed and is completely dry.

Maxiboard Accessories

Resilient Bars = 3000mm x 120 x 30mm



SRS Gripfix = 310ml tube



SRS Acoustic Sealant = 900ml tube



Maxi HP Screws = 3.9 x 30mm



soundseal

Grade	Length	Roll width	Thickness	
			Compressed	Expanded
2/10	10m	15mm	2mm	10mm

Density: 33kg/m³

Cutting: By sharp knife or scissors.

Expansion Time: Full expansion when cut from the roll will take 24 hours in normal conditions. If re-compressed, Soundseal will re-expand within minutes.



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Manufacturers of Acoustic Insulation Products

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Site conditions and installation standards vary. SRS cannot take responsibility for the performance of any installed system of which SRS products are only a part, or that have been installed incorrectly. Prior to installation, it is necessary to identify and eliminate possible flanking paths that may compromise the acoustic performance of any SRS product.