PHONESTAR TRI

DESIGN GUIDE

V1.0 May 2024

Woodland Lifestyle

General and product information

PURPOSE

This guide is for the design of PhoneStar Tri.

PhoneStar Tri boards reduce airborne and impact sound transmission and add thermal mass to timber, steel-framed and concrete structures.

The boards can be used:

- as a sound-insulating flooring underlay
- as a sound-insulating wall panel or ceiling panel.

IMPORTANT DOCUMENTS

This guide must be read in conjunction with:

- the PhoneStar Tri pass™
- the PhoneStar Tri Specification guide
- the PhoneStar Tri Installation guide
- the PhoneStar Tri details.

SKILLS REQUIRED

Competent designers can use this guide.

Where applicable, the person specifying the PhoneStar Tri system must be able to meet all restricted building work (RBW) provisions.

FOR MORE HELP

For further information and assistance, visit woodlandlifestyle.co.nz.

While all reasonable efforts have been made to ensure the accuracy of the information provided, please note it is subject to change, and this document should be considered a guide only.

SCOPE AND LIMITATIONS

For scope of use, limitations, conditions and statement of NZ Building Code compliance, refer to the PhoneStar Tri pass™.

MORE INFO

pass

Woodland Lifestyle

Design as a sound-insulating flooring underlay

STEP 1 **CONFIRM SCOPE**

Confirm the proposed use is within the scope and limitations of the pass™ for use as a sound-insulating flooring underlay.

STEP 2 **CONFIRM RELATED BUILDING WORK AND SELECT THE SUBSTRATE**

PhoneStar Tri is compatible with a range of substrates, including concrete, timber, cross-laminated timber and lightweight steel frames.

PhoneStar Tri can be used as part of a mid-floor system assembly.

Confirm the primary structure:

- complies with the NZ Building Code and is designed in accordance with NZS 3604:2011, NASH Standard Part 2: May 2019 *Light steel framed buildings*, or AS/NZS *1170 Structural design actions*, or
- is suitable for the intended building work (if an existing building).

Where applicable, confirm joist spacing and spans are in accordance with:

- NZS 3604:2011: Timber-framed buildings, or
- NASH Standard Part 2: May 2019 *Light steel framed buildings*, or
- AS/NZS 1170 *Structural design actions*.

Where applicable, select a suitable flooring substrate.

STEP 3 **SELECT THE FLOORING COVERING TO BE USED**

PhoneStar Tri is compatible with a wide range of flooring systems, including engineered timber, ceramic tile, laminate, hybrid, carpet or vinyl.

Select a suitable floor covering.

STEP 4 **SELECT THE APPLICABLE BUILD-UP**

The typical acoustic build-up using PhoneStar Tri is:

- 1.4 mm Woodland decoupling fleece
- 1 layer of 15 mm PhoneStar Tri
- 4 mm Woodland decoupling plate. The decoupling plate is not required for floating floor systems that do not require fixing or adhesive, such as laminate, hybrid or timber floating floors.

Multiple build-up options exist for incorporating PhoneStar Tri into Woodland Lifestyle's mid-floor system assemblies, PhoneStar Lite, SoundLite and SoundPro.

Select the applicable build-up.

Substrate	Floor covering	Acoustic build-up components	ILC, STC (laboratory test result)
GIB GBDFA 60b or equivalent.	Sheet vinyl	1.4 mm decoupling fleece 1 x layer of 15 mm PhoneStar Tri 4 mm decoupling plate	56dB IIC, 64dB STC Test: T2321-2-ATS
GIB GBDFA 60b or equivalent.	Sheet vinyl	1.4 mm decoupling fleece 2 x layers of 15 mm PhoneStar Tri 4 mm decoupling plate	61dB IIC, 66dB STC Test: T2321-3-ATS

	GIB GBDFA 60b or equivalent.	Engineered timber (glued down)	1.4 mm decoupling fleece 1 x layer of 15 mm PhoneStar Tri 4 mm decoupling plate	57dB IIC, 67dB STC Test: T2321-9-ATS
	GIB GBDFA 60b or equivalent.	Ceramic tile	1.4 mm decoupling fleece 1 x layer of 15 mm PhoneStar Tri 4 mm decoupling plate	60dB IIC, 68dB STC Test: T2321-10-ATS
	GIB GBDFA 60b or equivalent.	Strata Premium Hush (Hybrid)	1.4 mm decoupling fleece 1 x layer of 15 mm PhoneStar Tri	55dB IIC, 66dB STC Test: T2321-5-ATS
	GIB GBDFA 60b or equivalent.	Laminate	1.4 mm decoupling fleece 1 x layer of 15 mm PhoneStar Tri 2 mm FloorMuffler US underlay	56dB IIC, 65dB STC Test: T2321-7-ATS

Two layers of PhoneStar Tri may be used with any build up for improved performance of approximately 5 dB IIC.

PhoneStar Tri must be specified for the entire building or floor to avoid stepped transitions to carpet.

STEP 5 **DETAIL THE USE OF THE PRODUCT**

Access the PhoneStar Tri sound-insulating flooring underlay details. See details.

The PhoneStar Tri details should be inserted on the applicable plan sheets of the building consent application documentation and used during installation.

Specify PhoneStar Tri with the system assembly specified by the supplier and in conjunction with Wolf and Woodland system accessories and components. System accessories include the following: PhoneStar tape, Woodland approved adhesives, acoustic sealant, Woodland isolation strip, Woodland Decoupling Plate and Woodland Decoupling Fleece.

Where Clause E3 applies, specify a compatible waterproof system.

PhoneStar Tri must not be specified in rooms with elevated moisture or high humidity, such as saunas and pool enclosures.

STEP 6 **QUALITY CHECK**

Confirm all relevant design requirements are met.

Collate the following documents and include in the building consent application:

- the PhoneStar Tri pass™
- the PhoneStar Tri Specification.
- the PhoneStar details.

Woodland Lifestyle

Design as a sound-insulating wall panel or ceiling panel

STEP 1	**CONFIRM SCOPE** This guide is for use where PhoneStar Tri is to be used as a sound-insulating wall panel or ceiling panel and specified and installed as part of a building consent. In some circumstances, PhoneStar Tri may be installed without the need for a building consent (refer to Schedule 1 of the Building Act 2004 and guidance. This installation may be carried out by a competent DIYer. Confirm the proposed use is within the scope and limitations of the pass™ for use as a sound-insulating wall panel or ceiling panel.
STEP 2	**CONFIRM RELATED BUILDING WORK** Confirm the primary structure and framing: › complies with the NZ Building Code and is designed in accordance with NZS 3604:2011, NASH Standard Part 2: May 2019 *Light steel framed buildings*, or AS/NZS 1170 *Structural design actions*, or › is suitable for the intended building work (if an existing building).
STEP 3	**SELECT THE WALL CONFIGURATION** PhoneStar Tri wall and ceiling configurations include: › 1 layer of 15 mm PhoneStar Tri, direct fixed to timber framing › 1 layer of 15 mm PhoneStar Tri, fixed to 16 mm channels › 1 layer of 15 mm PhoneStar Tri, fixed to 16 mm channels; fixed over 45 mm x 45 mm battens and fibreglass or wool insulation. Select the required configuration. PhoneStar Tri must be covered with plasterboard or other appropriate wall or ceiling linings, such as OSB or plywood.
STEP 4	**DETAIL THE USE OF THE PRODUCT** Access the PhoneStar Tri sound insulating wall panel or ceiling panel details [see details]. The PhoneStar Tri System should be inserted on the applicable plan sheets of the building consent application documentation and used during installation. Specify PhoneStar Tri, the selected fixing method and the selected lining.
STEP 5	**QUALITY CHECK** Confirm all relevant design requirements are met. Collate the following documents and include them in the building consent application: › the PhoneStar Tri pass™ › the PhoneStar Tri specification › the PhoneStar details.