

SoundDown Duo System

DESIGN GUIDE

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General and product information

PURPOSE

This guide relates to the design of the SoundDown Duo System.

IMPORTANT DOCUMENTS

This guide must be read in conjunction with:

- › the SoundDown Duo System pass™
- › the SoundDown Duo System Specification Guide
- › the SoundDown Duo System Details
- › the SoundDown Duo System Installation Guide
- › the SoundDown System Care and Maintenance Guide
- › the SoundDown System Warranty
- › NASH Standard Part 2: May 2019 Light Steel Framed Buildings
- › AS/NZS 1170 Structural Design Actions
- › NZS 3604: Timber-framed buildings
- › NZS 3404 Parts 1 and 2: 1997 Steel Structures Standard.

SKILLS REQUIRED

This guide is suitable for use by a designer who is a licensed building practitioner licensed to the relevant class or deemed LBP.

FOR MORE HELP

Technical assistance is available at www.sounddown.co.nz.

While all reasonable efforts have been made to ensure the accuracy of information provided, this guide is a guide only. It may be subject to change.

FOR OUR WARRANTY

Refer to www.sounddown.co.nz.

PRODUCT DESCRIPTION

SoundDown Duo is a two-layer floor/ceiling system that achieves an STC rating of 64 dB, an IIC rating of 62 dB and incorporates a 60/60/60 fire rated ceiling; the floor structure is excluded from the fire cell.

SoundDown Duo is installed in conjunction with a timber or lightweight steel structural frame and timber joists.

SoundDown Duo comprises:

- Maglok™ DragonBoard® flooring - 20 mm, fixed with 8 g x 50 mm class 3 galvanised substrate screw fixing fixed at 300 mm centres.
- SoundDown acoustic flooring battens - seated on rubber deckchairs set at 450 mm centres.
- Vermiculite lightweight acoustic granules - 70 mm deep. Vermiculite is a phyllosilicate mineral which is an environmentally friendly, low-density granule. It is absorbent and non-combustible, contributing to the acoustic performance.
- Maglok™ DragonBoard® - 20 mm fixed with Maglok™ floor substrate fixing to timber joists at 200 mm centres.
- SG8 timber joists - 190 mm x 45 mm set at 450 mm centres or lightweight steel framing to equivalent stiffness set at 450 mm centres.
- Rondo STPC ceiling mounts assembled with acoustic clips.
- Mammoth™ polyester insulation R1.8/900 gsm.
- Rondo 129 Furring Channel steel ceiling battens - 28 mm.
- USG Firestop - 2 layers of 13 mm thick board screwed to steel battens, sealed with USG Firesound®.

SCOPE AND LIMITATIONS

For scope of use, limitations, conditions and statement of building code compliance, refer to the SoundDown Duo System pass™.

Design

Design the system using the following steps.

STEP 1:	CONFIRM SCOPE Confirm the proposed use is within the scope and limitations of the pass™.
STEP 2:	CONFIRM RELATED BUILDING WORK Confirm the framing substrate: <ul style="list-style-type: none">› for new building work, complies with the NZ Building Code and is designed in accordance with:<ul style="list-style-type: none">• section 6 and 11 of NZS 3604:2011, or• NASH Standard Part 2: May 2019 Light Steel Framed Buildings, or• AS/NZS 1170 Structural Design Actions, or• NZS 3404 Parts 1 and 2:1997 Steel Structures Standard, or› for an existing building, that it is suitable for the intended building work.
STEP 3:	DESIGN JOISTS Establish spacings and spans required for the building design for the joists in the SoundDown Duo System are in accordance with: <ul style="list-style-type: none">› NZS 3604:2011: Timber-framed buildings, or› NASH Standard Part 2: May 2019 Light Steel Framed Building, or› AS/NZS 1170 Structural Design Actions, or› NZS 3404 Parts 1 and 2:1997 Steel Structures Standard.
STEP 4:	DETAIL USE OF THE SYSTEM Access the SoundDown Duo System detail. The SoundDown Duo System details should be inserted on the applicable plan sheets of the building consent application documentation and used during installation. Confirm that the detail is consistent with USG Boral Systems+ CT60.IB. https://www.usgboral.com/en_nz/product-resources-and-tools-from-usg-boral/the-resource-centre/systems-plus.html
STEP 5:	QUALITY CHECK Check all required documentation for the building consent application is collated and that the building consent plans clearly define and include: <ul style="list-style-type: none">› framing requirements› joist spacings and spans. Complete the SoundDown Duo System Specification, ensuring all relevant information is included.
