Specification Guide

Embrace® unites the tactile warmth of New Zealand Strong Wool with a timber frame to create an acoustic wall system. Made using wool with a carbon negative footprint of minus 8.6kg CO_2e. Plus, high-performance acoustic absorption and a new colour palette unique to our wool material.

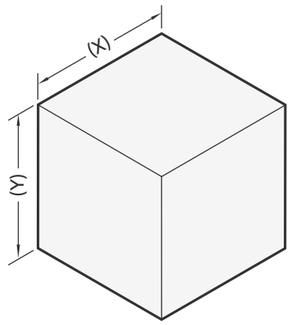
Autex Acoustics®

Embrace® Wall System

Path to Specification

1. Space

What are the dimensions of the space you are designing?



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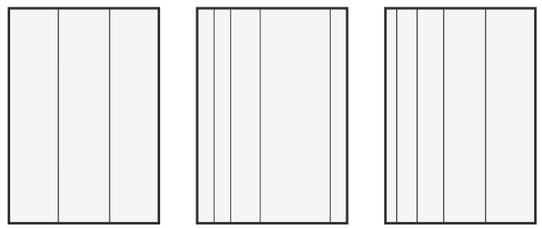
2. Styles

What standard styles are available?



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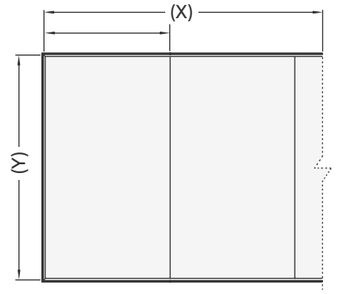
3. Configuration

How can the styles be adjusted to suit your project?



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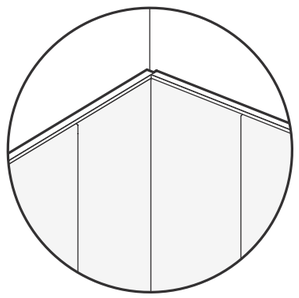
4. Detail Considerations

What details need to be considered for install?



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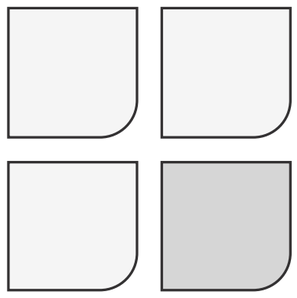
5. Colours and Finishes

What colours and finishes are available?



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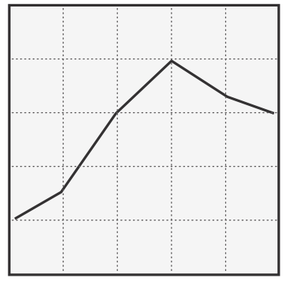
6. Technical Information

What are the technical specifications?



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Contents

Standard Assembly

Dimensions

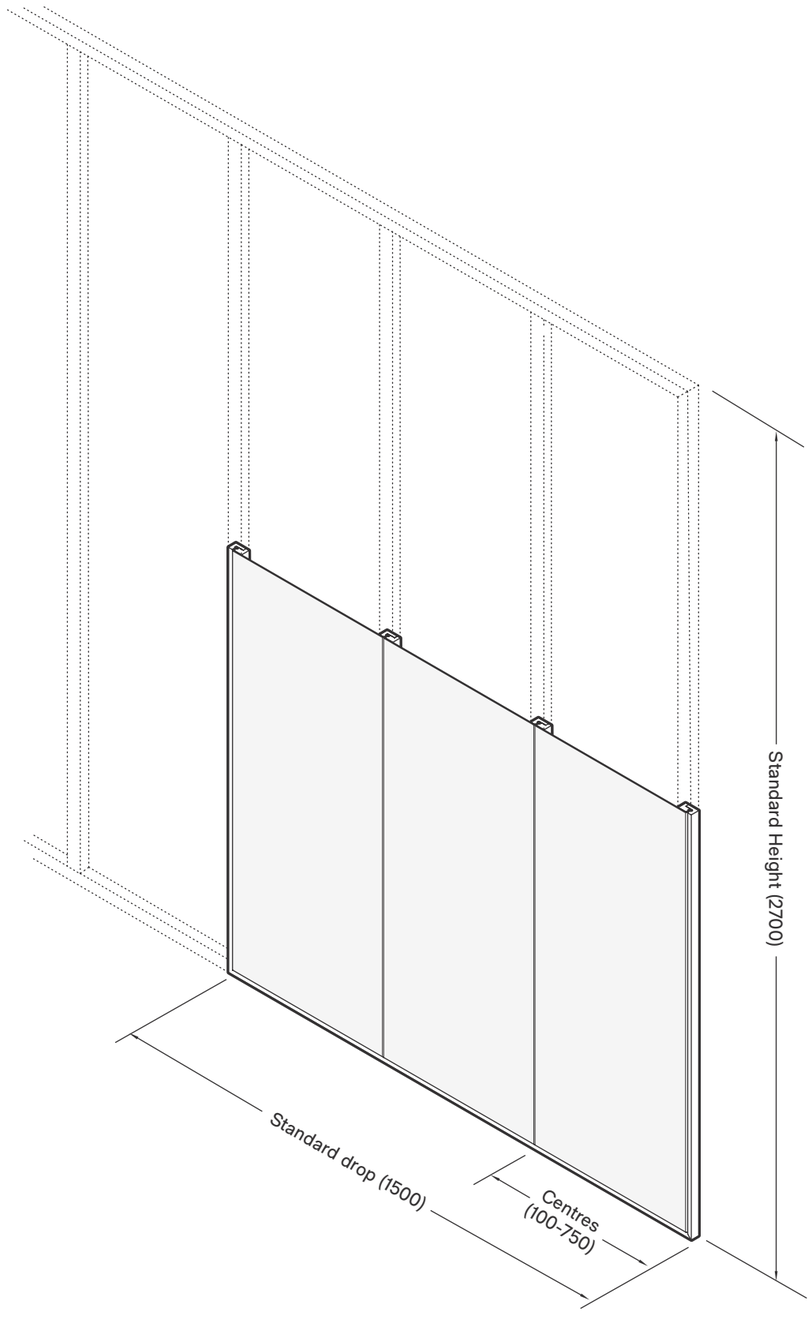
Height	2700mm standard (maximum 21m)
Width	1500mm (standard wool drops)
Depth	26mm

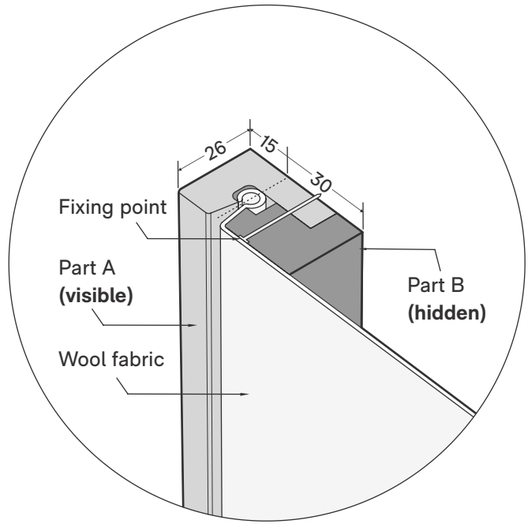
See layouts page for added detail and options

Connection

Timber Framing	Nailed to substrate
Wool Fabric	Friction-fit to battens

See parts overview page in Install Guide for details





NOTE: **Perimeter frame adds an additional 15mm to all external edges.**

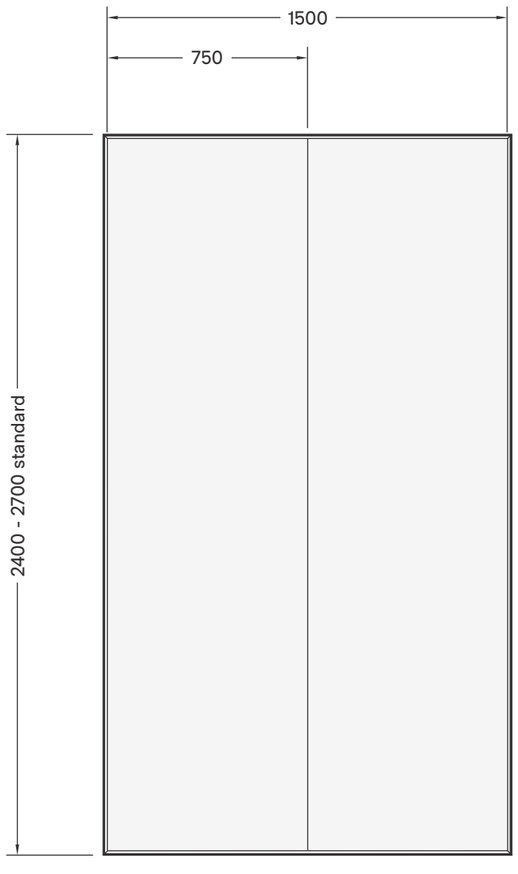
Uniform

- Uniform styles are **equal divisions** of 1500mm single drops
- We recommend maximum five spaces per drop (maintaining **minimum 300mm** and **maximum of 750mm** between centre spaces)

NOTE: Please add an additional **15mm** to all external edges for the **visible frame**

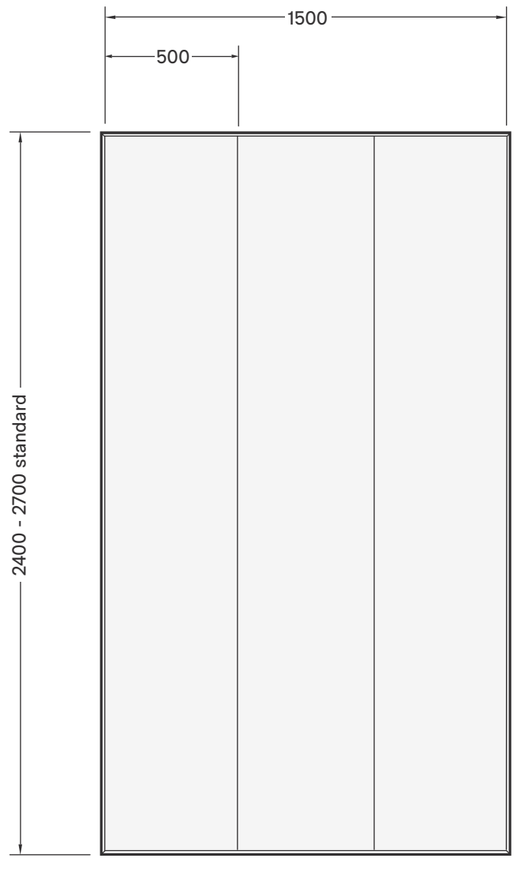
Uniform 750 Centres

Single drop shown



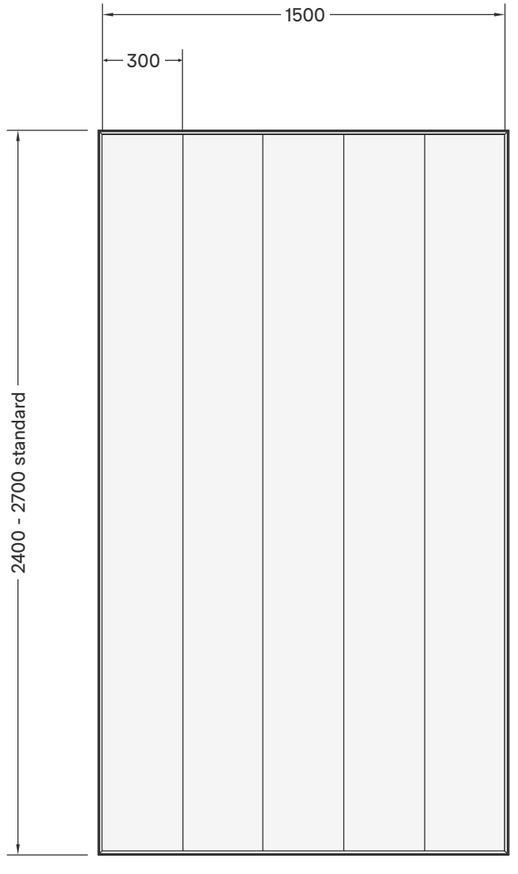
Uniform 500 Centres

Single drop shown



Uniform 300 Centres

Single drop shown



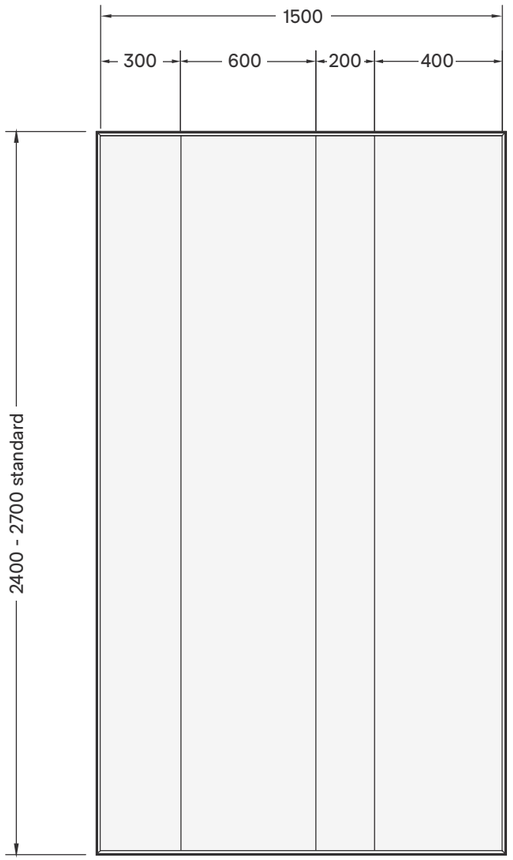
Barcode

- Barcode styles provide a **randomised**, **scattered** look once installed
- We recommend maximum five spaces per drop (maintaining **minimum 100mm** and **maximum of 750mm** between centre spaces)
- There is more flexibility to specify centres where you desire, these are suggested layouts to get you started

NOTE: Please add an additional **15mm** to all external edges for the **visible frame**

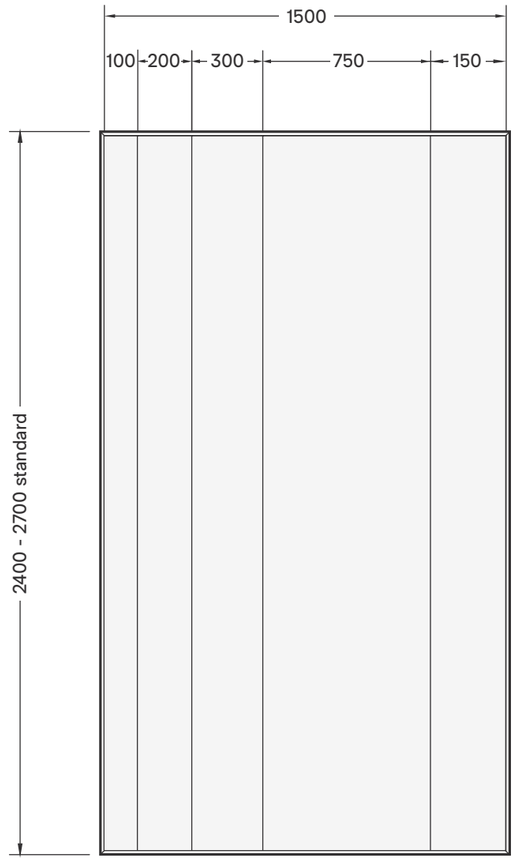
Barcode A

Single drop shown



Barcode B

Single drop shown



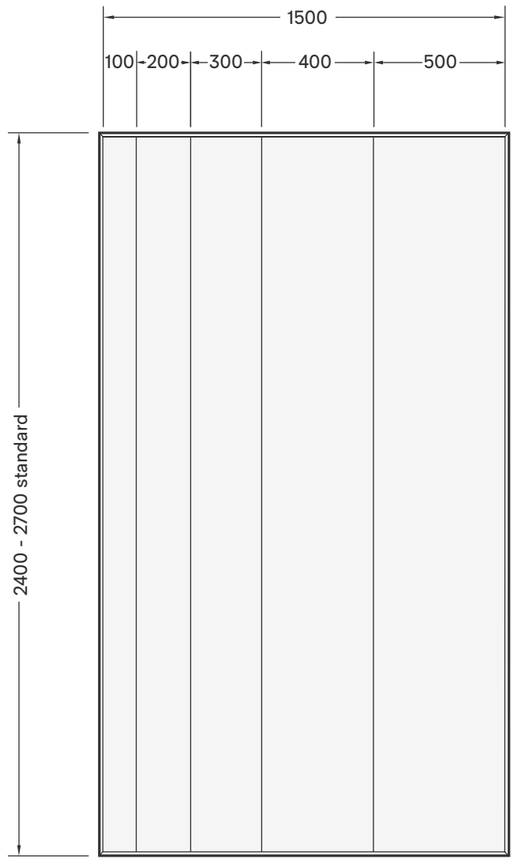
Gradient

- Gradient styles have **progressively expanding** centre spaces along a wall install
- We recommend maximum five spaces per drop (maintaining **minimum 100mm** and **maximum of 750mm** between centre spaces)
- There is more flexibility to specify centres where you desire, these are suggested layouts to get you started

NOTE: Please add an additional **15mm** to all external edges for the **visible frame**

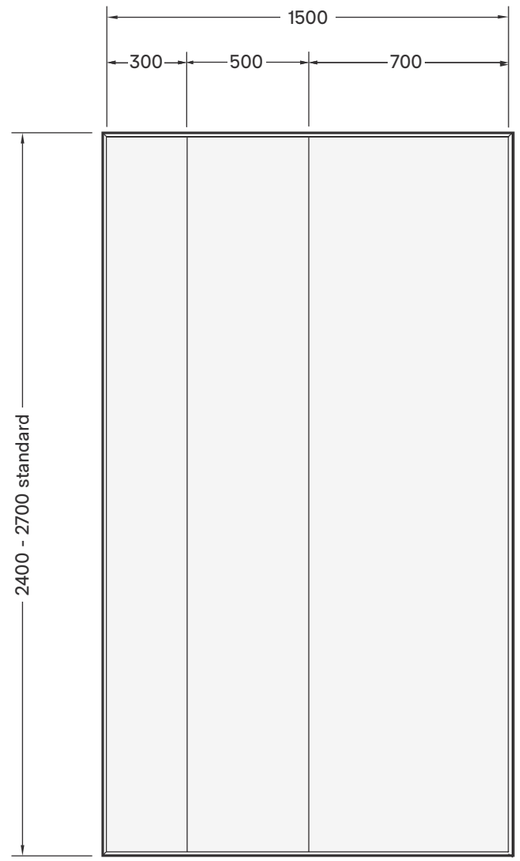
Gradient A

Single drop shown



Gradient B

Single drop shown



Layout Options

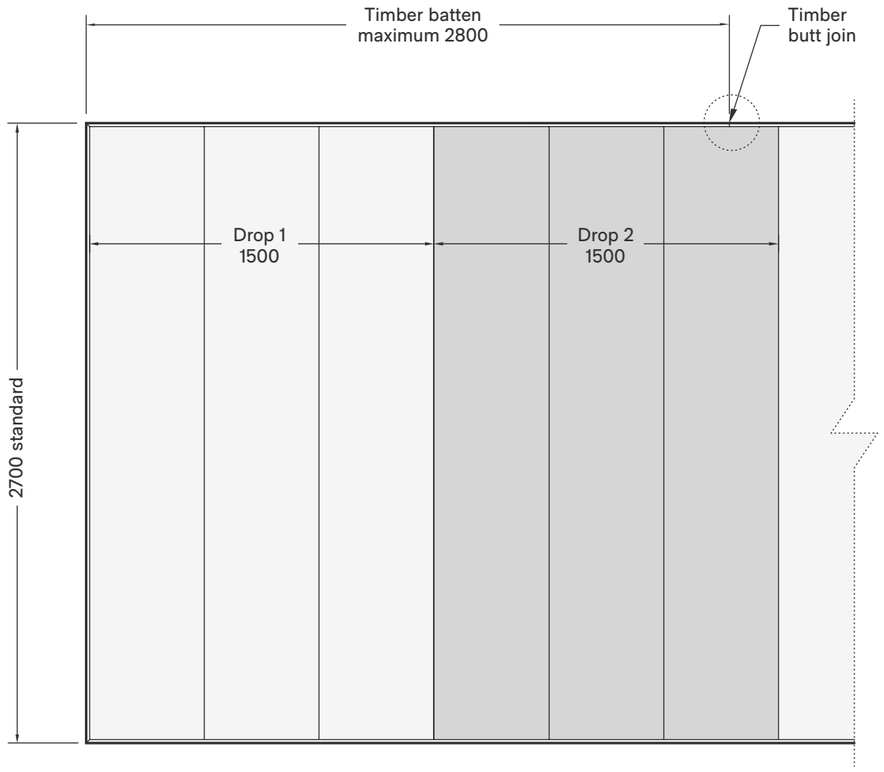
Width Considerations

- **Material drops are 1500mm** wide standard install, and require a material join between each drop
- **Framing battens are 2800mm** long and can be cut to length on-site. These require a butt join in the horizontal framed edge beyond that distance

Height Considerations

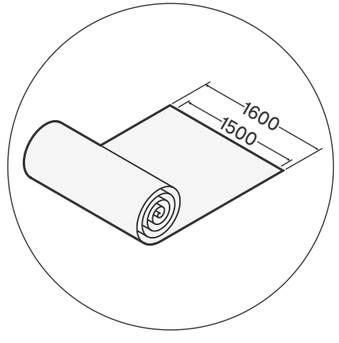
- **Framing battens are 2800mm** and can be cut to length on-site. These require a butt join in the vertical framed edge beyond that distance
- The maximum height of a single drop is 21m, the maximum roll length of wool fabric

Width Considerations



Height Considerations

- The wool fabric comes in a maximum roll size of **1.6 x 21m**
- The wool has a maximum finished width of **1500mm** when installed
- A material join is required between each drop when installed beyond 1500mm width

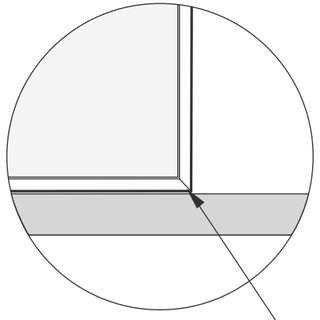


Essential Information

NOTE: Refer to install guide for further detail

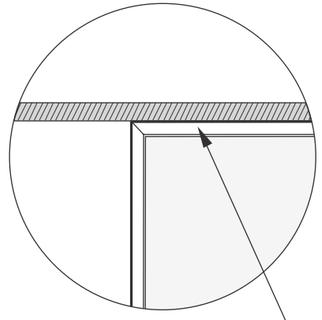
Skirting Board

The Embrace system must be installed above the skirting board on an elevation. The visible timber frame will occupy 15mm above the skirting board before the wool starts.



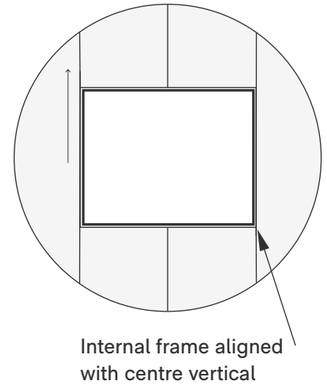
Ceiling

The Embrace system can be installed flush with the ceiling, provided there is no coving around the perimeter. The visible timber frame will extend 15mm below the ceiling before the wool starts.



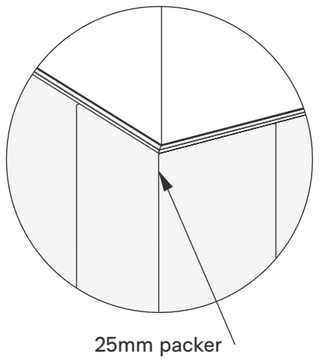
Internal Frame

If the elevation includes a screen or recessed cavity, an internal frame is required. The internal frame edge must align with the centre verticals of the system to ensure a clean install.



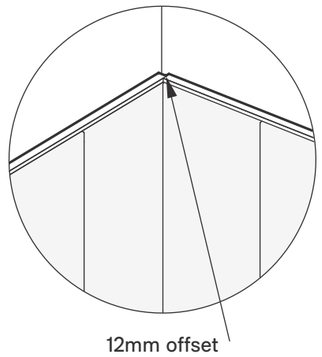
External Corner

If your specification requires the system to continue around an external corner, this can be achieved. An additional 25mm packer must be added to each side of the external corner to prevent the wool fabric from waisting.



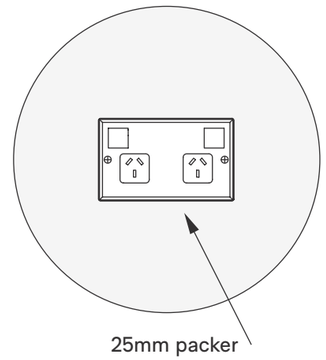
Internal Corner

If your specification requires the system to continue around an internal corner, this can be achieved. One frame edge must be offset 12mm from the adjacent wall, while the other side must butt joint directly against the first. This ensures centre-join alignment between each wall for a clean install.



Powerpoints

If the intended specification includes electrical fittings, a 25mm packer must be installed around the substrate hole before installing wool fabric. The wool fabric can then be cut to allow the cables and electrical fittings to pass through. The fittings should be secured through the wool fabric and into the packer.



Colours and Finishes

Wool Fabric

This material is a carbon negative fabric made with Rubisco® natural materials from New Zealand strong wool. Its unique weave offers a soft, flexible feel, ideal for walls.


Clay


Kōwhai


Karaka


Pūriri


Kelp


Matariki

Timber Frame

With patented vertical grain technology and from a rapidly renewable source, this joinery timber from Abodo makes the perfect frame.


Natural

Let’s Get Negative

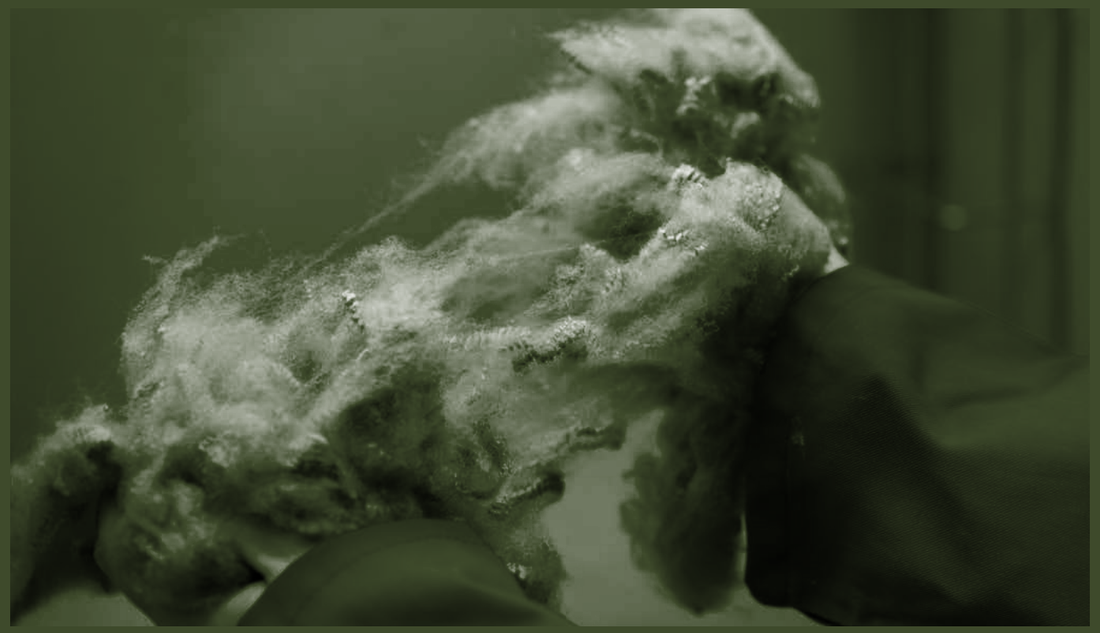
Carbon zero is a good starting point. But we can do better than aiming for zero. Humans are hard-wired to win, and we need to win for our planet. We need to move beyond zero, and we are starting with wool.

New Zealand Strong Wool has the potential to lead the world in being carbon negative and Nature Positive. This means we are manufacturing materials and products that support biodiversity and environmental regeneration.

Independently certified through the Global GreenTag International NaturePositive+ Declaration™ programme, our single source New Zealand wool achieves a carbon negative footprint of -8.6kg CO_2e, which means that for every 1kg of wool produced, 8.6kgs of carbon are banked.

At Autex Acoustics, we design for circularity across all our materials including wool—by carefully considering every part of the system, from sheep to farm to wall.

We source strong wool exclusively from a single NZFAP+ certified and ecological outcome verified (EOV) farm, ensuring industry-leading practices.



GLOBAL GREENTAG CERTIFIED -8.6 kg CO_2e CARBON NEGATIVE

TRACEABLE SINGLE SOURCE NEW ZEALAND WOOL

First NaturePositive+ Declaration™ for the Construction Industry

Our journey toward a Nature Positive future has been ongoing for some time, so it was essential that we developed our wool product with integrity, guided by science and backed by rigorous data every step of the way.

Our wool is the first construction-related product to receive the Global GreenTag NaturePositive+ Declaration™, and it’s certified PLATINUM with a NaturePositive+ Rating of 160%.

Nature Positive

A world-first benchmark for environmental standards by Global GreenTag International.

The NaturePositive+ Declaration™ is a product certification that delivers a holistic assessment framework focused on the repair of nature.

Businesses that commit to this certification are actively protecting, restoring, and rebuilding the natural environment that supports and connects us all.

It is about applying sound science that values natural capital and ecological integrity as the basis for generating social and financial well-being.

EN 15804 COMPLIANT EPD Environmental Product Declaration Global GreenTag

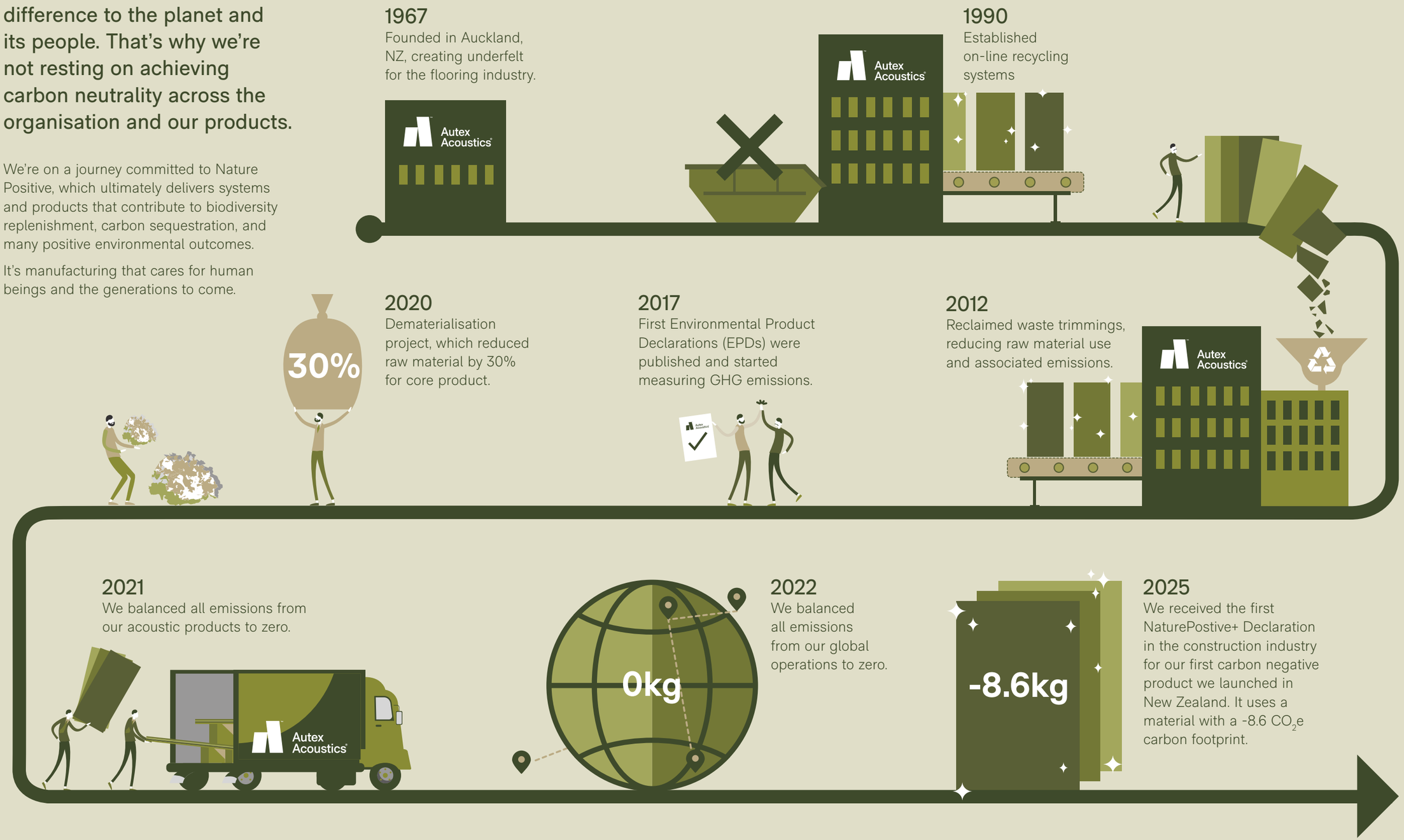
Nature Positive+ 160% Global GreenTag Certified PLATINUM

Our Journey to Nature Positive

We want to make a material difference to the planet and its people. That's why we're not resting on achieving carbon neutrality across the organisation and our products.

We're on a journey committed to Nature Positive, which ultimately delivers systems and products that contribute to biodiversity replenishment, carbon sequestration, and many positive environmental outcomes.

It's manufacturing that cares for human beings and the generations to come.



1967
Founded in Auckland, NZ, creating underfelt for the flooring industry.

1990
Established on-line recycling systems

2012
Reclaimed waste trimmings, reducing raw material use and associated emissions.

2017
First Environmental Product Declarations (EPDs) were published and started measuring GHG emissions.

2020
Dematerialisation project, which reduced raw material by 30% for core product.

2021
We balanced all emissions from our acoustic products to zero.

2022
We balanced all emissions from our global operations to zero.

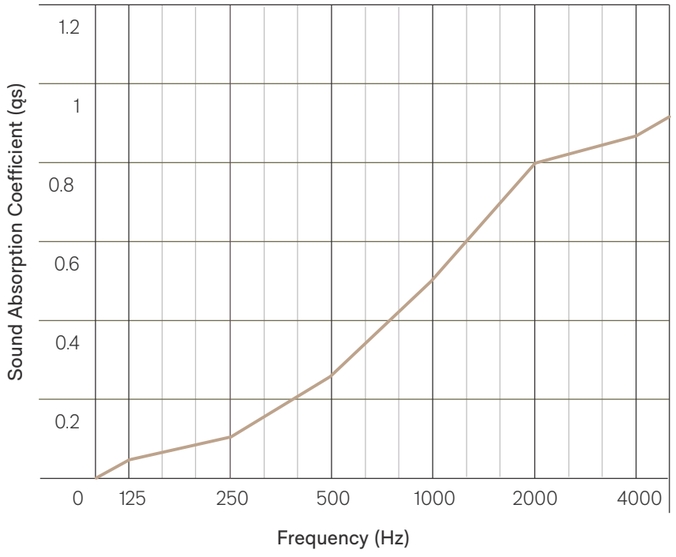
2025
We received the first NaturePostive+ Declaration in the construction industry for our first carbon negative product we launched in New Zealand. It uses a material with a -8.6 CO_2e carbon footprint.

Information

Acoustic Performance

Test results of Embrace wool stretched over 25mm empty cavity on 16mm plywood resulted in a rating of NRC 0.4. αW = 0.3.

	Frequency (Hz)	125	250	500	1000	2000	4000	NRC
●	Embrace 25mm air gap	0.05	0.10	0.25	0.50	0.80	0.85	0.40



Fire Considerations

AS ISO 9705: Group 2 rating (Test FI18334-02)

ISO 9705: Group 2-S rating (Test FI18334-02)

Fire test report available on request

For care and maintenance guidance, view the product Care and Maintenance Guide

Product Specifications

Mechanical Testing:

Strength Can withstand a pulling force of over 250N (25kg) when stretched vertically and more than 500N when stretched horizontally (50kg).

Elongation Can stretch 70% in the warp direction and 135% inthe weft direction before the material fails.

Martindale abrasion test (AS2001.2.25.1:2006):

Average number of rubs to specimen breakdown: 28,000 - appearance change and greyscale 3 colour change not reached.

Determination of colourfastness to rubbing (AS2001.4.3-1995):

Dry assessment: 4 - 5

Wet assessment: 4 - 5

Stained cloths are assessed in both dry and wet and graded against a set of standard grey scales for assessing staining. The stained cloths are graded on a scale of one to five, with five being no staining at all and one being excessive staining.

Determining the water vapour sorption of unfaced mineral fibre insulation (ASTM C1104/C1104M-2019):

Test conditions: 49°C, 95% RH

Average % of water vapour sorption by weight after four days: 9.9%

10 Year Manufacturer's Guarantee

● Technical Information