This manual has been developed using recognised New Zealand and Australian standards together with sound engineering principles substantiated through BRANZ laboratory testing and reports.

This manual in no way supersedes the requirements of any Statutory Authority or New Zealand Standard but is rather a guide to the performance of Speedwall® under certain loading conditions.

The manual provides builders, engineers, designers and architects with a user friendly format for installing and designing Speedwall® for non load bearing applications.

In brief, Speedwall® has:

- Fire rated systems ranging from 60 minutes to 240 minutes.
- Acoustic systems ranging from STC 40 to STC 80.
- Panel dimensions of 250mm high by 78mm thick (nominal) in lengths up to 9.3 metres.
- Panels that weigh (nominally) 10.2kg per lineal metre.
- Panels available in galvanised or colour steel.

Typical Applications are:

- Dividing and boundary walls for sheds, factories and warehouses.
- Cinema walls.
- Inter-tenancy walls for apartments, hotels and retirement complexes.
- Lift shaft and duct walls.
- Noise Barriers.

1 Introduction .................................................. 02-05

Overview, Acoustic performance, Fire performance, 100% reusable, Minimum waste, Project portfolio, Companies using Speedwall®, Industrial and retail applications, Apartments and commercial inter-tenancy applications, Lift shafts, ducts and stairs, Steel buildings and sheds, Client feedback.

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Speedwall® panels, Loading combinations, General design notes, References, Standards, Manufacturers documents, Speedwall® panel properties, Vertical span walls, Horizontal span walls, Thermal resistance.

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Maximum spacings, Shear strength per fastener, Maximum wall height, Boundary members and openings, Installation notes.

4 Speedwall® Fire Rated Systems ......................... 10-13

FS1 - 60 minute fire rated system
FS2 - 120 minute fire rated system
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FS4 - 240 minute fire rated system

5 Speedwall® Noise Control Systems .................... 14-17

NCS1 - STC40 Noise Control System
NCS2 - STC58 Duct and Shaft Wall System
NCS3 - STC59 Apartment Inter-tenancy Noise Control System
NCS4 - STC76 Theatre Wall Noise Control System

6 Installation Information .................................... 18-28

General overview, C Track and Angle sections, Cutting of Speedwall® panels, Horizontal installation, Last panel, Corners, Vertical installation, Last panel, Doorways and windows, Penetrations, Plumbing and electrical services, Shelf loads, Fixing accessories, External wall installation.

Compliance with the New Zealand Building Code (NZBC), Quality control, Design guidelines, Limitations, Transport, Handling and storage, Strippable film, Cleaning, On site handling, Installation, Maintenance, Material safety data sheet, Specification, Warranty, Disclaimer, Do not substitute any component, Liability, Is this publication current?
1 Introduction

Superior fire and acoustic performance with clip-together simplicity

- BRANZ appraised.
- Roll formed galvanised steel or colour steel outer shell.
- Lightweight with aerated concrete core.
- Fire ratings up to \(-/240/240\).
- Noise ratings up to STC80.
- Panels interlock with clip-together simplicity for rapid installation.
- Can be dismantled and reassembled to accommodate changing requirements.
- Can be installed horizontally or vertically.

When noise and fire regulations demand a high performance, no risk solution, Speedwall® will meet the most stringent building code requirements for internal non load bearing walls simply and cost effectively.

Exceptionally strong yet lightweight, the patented interlocking panels can be easily erected by a small crew, making Speedwall® much faster to install than conventional wall systems.

Construction using Speedwall® also allows a building to be made weather resistant much earlier in the construction cycle allowing internal work and finishing to be started sooner.

Acoustic performance

Speedwall’s inherent mass and interlocking design gives it outstanding noise reduction properties making it highly suitable in buildings where acoustic performance is critical, such as cinemas, lecture theatres, apartments, recording studios and industrial/commercial inter-tenancy situations.

The unique interlocking design eliminates the risk of sound “leaks” between panels, and makes installation much faster and more simple than traditional systems.

Fire performance

Speedwall® delivers proven two-way fire resistance over a long period of time.

Speedwall® has been tested and appraised by the Building Research Association of New Zealand (BRANZ) and tested by the Commonwealth Scientific and Industrial Research Organisation in Australia (CSIRO).

100% reusable, minimum waste

Speedwall® is manufactured in New Zealand and offers unique benefits in terms of sustainability and environmental performance:

- Walls can be reused by simply dismantling the panels and reinstalling them in another location.
- The raw material components (steel and concrete) are 100% recyclable.
- Panels are custom manufactured to size minimising waste at the factory and on the construction site.
Project portfolio

- Auckland University Business School
- Berkeley Cinemas, Botany Downs
- Farmers Car Park, Christchurch
- Grenada Business Park, Wellington
- Henderson Film Studios, Auckland
- Hoyts Cinemas, Sylvia Park
- Lumina Apartments, Auckland
- NRM Tower, Auckland
- NZ Post Mail Centres (Auckland, Hamilton, Christchurch)
- Precinct Apartments, Auckland
- Scene Three Apartments, Auckland
- Southgate Retail Development, Auckland

Companies using Speedwall®

- Arrow International
- Aspec Construction
- Brookfield Multiplex
- Building Solutions
- Clearwater Construction
- Dominion Constructors
- Ebert Construction
- Fletcher Construction
- Hawkins Construction
- Haydn & Rollett Construction
- Leighs Construction
- Macrennie Construction
- Mainzeal Construction
- Manson Developments
- Naylor Love
- Watts & Hughes Construction

For more detailed information and case studies, go to www.speedwall.co.nz
**Introduction**

**Industrial and retail applications**

In factories, warehouses and bulk retail environments, Speedwall® provides strong, solid separation walls that are secure and fire compliant with high noise insulating properties.

In buildings where the interior layout may need to be reconfigured for future needs, Speedwall® is especially versatile in that it can be easily dismantled and relocated with no loss of acoustic or fire performance.

Standard Speedwall® has a highly reflective surface and when left unlined, can help create a brighter, safer working environment. Alternatively, Speedwall® can be supplied in a range of colour steel paint finishes.

**Inter-tenancy applications**

With traditional inter-tenancy wall systems, it is often difficult to achieve reliable on-site performance due to the complex nature of the system’s installation requirements.

The clip-together simplicity of Speedwall® greatly reduces installation complexity and minimizes the risk of sound “leaks” or discrepancies in on site acoustic performance.

With a baseline performance of STC59 and a fire rating of FRR –/240/120, Speedwall® inter-tenancy systems for multi-unit residential projects exceed all Building Code requirements for both fire and noise control.

Speedwall® is also an increasingly popular choice for factories, workshops and other commercial developments where there are multiple tenants and noise is an issue.

**Lift shafts, ducts and stairs**

For lift shafts, duct walls and stair spline walls, Speedwall® offers significant advantages over traditional construction.

Because it can be installed from one side only, there is no requirement to construct scaffolding inside the shaft, greatly reducing construction time and costs.

Unlike traditional systems, Speedwall® can be installed before the structure is watertight and also helps prevent water from entering the building through open shafts.
Steel buildings and sheds

Speedwall® is especially efficient and economical when used for fire-rated separation and boundary walls in steel buildings, sheds and similar structures.

Installation can generally be managed by a two-man team and no cranes are required on site.

Also, the floor slab does not have to be specially engineered to accommodate the additional weight associated with traditional tilt slab or other similar construction techniques, leading to significant cost savings.

Client feedback

> IGNITE ARCHITECTS:
Berkeley Cinemas
“Speedwall® is far superior to normal construction for a theatre. It took out the possibility of their being a flaw by removing a lot of the human error factor. It cut out between six and eight weeks worth of construction time.”
– Jeremy Craig, Architect

> FLETCHER CONSTRUCTION:
Auckland University Business School
“We got two months advantage on the building programme by going to Speedwall®. It’s been a test case for Fletcher Building as we look towards introducing Speedwall® into our other building projects.”
– Andrew Rolfe, Site Manager

> SPANTECH BUILDINGS:
Taupo Motorpark
“We were looking for a cost-effective alternative to precast panels. Speedwall® is much quicker and shortened the project by two to three weeks on an eight week project. It was easy to do and the acoustic rating is brilliant.”
– Marc Osborne

> MAINZEAL CONSTRUCTION:
Scene 3 Apartments
“The acoustic qualities and fire qualities were quite a selling point and were well over code requirements. Speedwall® construction saved us a lot of time, hassle and risk. The system is so robust and reliable.”
– John Williams, Project Manager

Speedwall® can be manufactured with a colour steel paint finish.
2 Panel Properties

**Speedwall® panels**

Speedwall® panels are rollformed from zinc coated steel strips. The steel from which the shells are manufactured conforms to AS1397:2001.

Steel shells have a base metal thickness of 0.4mm B.M.T. with a Z275 zinc coating. These panels have an aerated concrete core and weigh nominally 10.2kg per lineal metre.

**Loading combinations**

All loading combinations are in accordance with NZ4203:1992 and AS/NZS 1170.0:2002.

**General design notes**

The designs specified in this manual have been carried out in accordance with NZS4203 and laboratory testing carried out by BRANZ Limited.

The tables and charts are prepared for the use of Speedwall® in wall applications i.e. floor systems cannot be modelled from the safe load tables in this manual.

Interpolation of the tables is acceptable.

**References**

The following references including standards and codes of practice govern the manufacture of components, use and design and installation of Speedwall® systems.

**Standards**

- NZS 2589.1:1997
  - Gypsum Linings in residential and light commercial construction.
- AS 3566:1988
  - Screws – Self Drilling for the Building and Construction Industry
- NZS 4203:1992
- AS/NZS 1170.0:2002
  - Structural design actions. Part 0: General Principles
- NZS 7202
  - Part 1 Specification for gap filling adhesives.

**Manufacturers documents**

Manufacturers and Suppliers Documents, which refer to work in this section are:

- Autex® Insulation Data Sheets
- GIB® Site Guide
- GIB® Fire Rated Systems
- Penetrations and closures in GIB® Fire Rated Systems
- GIB® Noise Control Systems
- Hitli® New Zealand Technical Manual
- Pink® Batts® Data Sheets
- Rondo® Steel Stud & Tracks Installation Manual
- USG® Drywall Steel Stud & Track System

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**Speedwall® Panel**

![](image)
**Speedwall® panel properties**

- **Base Metal Thickness**: 0.4mm B.M.T.
- **Mass kg per lineal metre**: 10.2 nominal
- **Mass kg/m²**: 40.8 nominal
- **EI (60 kNm² per panel (minor axis))**: 60 kNm²
- **EI (387 kNm² per panel (major axis))**: 387 kNm²
- **EA**: 4060 kN per panel
- **GJ**: 583 kNm² per panel

**Vertical span walls**

- **Maximum bending moment / panel**: 1.43 kNm (ULS)
- **Maximum axial end crush force / panel**: 25 kN (ULS) 3.4kN (SLS)
- **Maximum horizontal reaction (crushing on flat) / panel**: 8.9 kN (ULS) 3.1 kN (SLS)

**Horizontal span walls**

- **Maximum Bending Moment / panel**: 1.43 kNm (ULS)
- **Maximum axial edge crush force per unit length**: 17 kN/m (ULS) 6kN/m (SLS)
- **Maximum horizontal reaction / panel**: 8.9 kN (ULS) 3.1 kN (SLS)

**Thermal resistance**

- **R Value**: 0.43m²·K/W
- **U Value**: 3.2 W/m²·K

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**Legend**

- **ULS**: Value shown is for Ultimate Limit State loading.
- **SLS**: Value shown is for Servicability Limit State loading.
### Maximum spacings of fasteners for horizontal installation

- **10 x 16 screw fixings both sides. 1500mm centres max**
- **C Track fixings @ 400mm centres max. Hilti X-EDNI nails to steelwork**
- **10 x 30 screw fixings both sides at each panel joint**
- **10 x 16 screw fixings @ 800mm centres both sides**
- **C Track fixings @ 400mm centres max. M6.5 x 32 mushroom head spikes to concrete**

### Maximum spacings of fasteners for vertical installation

- **10 x 16 screw fixings both sides @ 400mm centres. 1500mm centres max**
- **C Track fixings @ 400mm centres max. Hilti X-EDNI nails to steelwork**
- **10 x 16 screw fixings both sides of each panel**
- **C Track fixings @ 400mm centres max. M6.5 x 32 mushroom head spikes to concrete**

### Shear strength per fastener for the following connections

<table>
<thead>
<tr>
<th>Connection</th>
<th>Load Direction</th>
<th>Type</th>
<th>Design Strength (kN) ULS</th>
<th>Design Strength (kN) SLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel to panel</td>
<td>In-plane</td>
<td>10x16 galvanised Steelite wafer head screws</td>
<td>1.01</td>
<td>0.83</td>
</tr>
<tr>
<td>Panel sides to C Track</td>
<td>In-plane</td>
<td>10x16 galvanised Steelite wafer head screws</td>
<td>0.95</td>
<td>0.78</td>
</tr>
<tr>
<td>Panel ends to C Track</td>
<td>Out-of-plane</td>
<td>10x16 galvanised Steelite wafer head screws</td>
<td>0.91</td>
<td>0.74</td>
</tr>
<tr>
<td>Panel sides to C Track</td>
<td>In-plane</td>
<td>10x16 galvanised Steelite wafer head screws</td>
<td>0.69</td>
<td>0.22</td>
</tr>
<tr>
<td>Panel ends to C Track</td>
<td>Out-of-plane</td>
<td>10x16 galvanised Steelite wafer head screws</td>
<td>2.21</td>
<td>0.77</td>
</tr>
<tr>
<td>C Track to concrete</td>
<td>In-plane</td>
<td>6.5x32 Rawl Mushroom spikes</td>
<td>7.84</td>
<td>2.27</td>
</tr>
<tr>
<td>C Track to concrete</td>
<td>Out-of-plane</td>
<td>6.5x32 Rawl Mushroom spikes</td>
<td>7.84</td>
<td>2.27</td>
</tr>
<tr>
<td>C Track to steel support</td>
<td>In-plane</td>
<td>Hilti® X DN1 16 MX nail</td>
<td>4.32</td>
<td>2.31</td>
</tr>
<tr>
<td>C Track to steel support</td>
<td>Out-of-plane</td>
<td>Hilti® X DN1 16 MX nail</td>
<td>4.32</td>
<td>2.31</td>
</tr>
</tbody>
</table>

**NOTE:** The design capacities for the fixings are generally significantly less than the manufacturers design capacities because of deformation of the fixing holes. We have used the lesser of the two values.
Maximum wall height

Use of Tables
1. Determine the loads on the Speedwall® in accordance with NZS 4203 1992 or AS/NZS 1170.0 as applicable.
2. Use Table 1 and/or Figure 1 to ensure that walls spanning horizontally can carry the loads previously calculated. Use Table 2 and/or Figure 2 to ensure that walls spanning vertically can carry the loads previously calculated. Interpolation of points in the tables is allowed.
3. The Tables and Graphs have been generated for a range of deflection limits i.e. Span/150 Span/200 Span/250 Span/300 in both the vertical and horizontal panel configurations.
4. The walls must be checked for both ultimate limit state loading (ULS) and serviceability limit state (SLS) loading.
5. Vertical Wall Tables and Graphs have been generated to a maximum of 8m height.
6. Horizontal Wall Tables and Graphs have been generated assuming a 14m high wall. This is the maximum wall height.

Boundary members and openings
The Speedwall® walls must be supported on all edges and around the perimeter of all openings. The connection between the walls and the boundary members and the boundary members themselves must be specifically designed to carry the loads from the Speedwall® walls.

Boundary member loads must not be transferred to the Speedwall® panels.

The fastener strengths shown in this section may be used to design the connections. Maximum spacing of fasteners is shown on page 8. Refer to Section 6 for installation information.

Installation note
All C Track to Structure, C Track to Speedwall® and Speedwall® to Speedwall® connections shall be in accordance with details specified in this manual unless specified otherwise by the Project Engineer.

Table 1.

<table>
<thead>
<tr>
<th>Span (m)</th>
<th>ULS Design</th>
<th>SLS Design L/150</th>
<th>SLS Design L/200</th>
<th>SLS Design L/250</th>
<th>SLS Design L/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10.05</td>
<td>9</td>
<td>7.7</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>2.5</td>
<td>7.3</td>
<td>6.02</td>
<td>4.94</td>
<td>4.2</td>
<td>3.64</td>
</tr>
<tr>
<td>3</td>
<td>5.04</td>
<td>3.7</td>
<td>3</td>
<td>2.5</td>
<td>2.17</td>
</tr>
<tr>
<td>3.5</td>
<td>3.7</td>
<td>2.42</td>
<td>1.95</td>
<td>1.63</td>
<td>1.39</td>
</tr>
<tr>
<td>4</td>
<td>2.82</td>
<td>1.67</td>
<td>1.34</td>
<td>1.1</td>
<td>0.94</td>
</tr>
<tr>
<td>4.5</td>
<td>1.94</td>
<td>0.88</td>
<td>0.69</td>
<td>0.56</td>
<td>0.47</td>
</tr>
<tr>
<td>5</td>
<td>1.37</td>
<td>0.51</td>
<td>0.39</td>
<td>0.32</td>
<td>0.26</td>
</tr>
<tr>
<td>6</td>
<td>0.72</td>
<td>0.31</td>
<td>0.23</td>
<td>0.19</td>
<td>0.15</td>
</tr>
<tr>
<td>7</td>
<td>0.38</td>
<td>0.17</td>
<td>0.14</td>
<td>0.11</td>
<td>0.09</td>
</tr>
<tr>
<td>8</td>
<td>0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.

<table>
<thead>
<tr>
<th>Span (m)</th>
<th>ULS Design</th>
<th>SLS Design L/150</th>
<th>SLS Design L/200</th>
<th>SLS Design L/250</th>
<th>SLS Design L/300</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10.05</td>
<td>10.05</td>
<td>9.05</td>
<td>7.7</td>
<td>6.7</td>
</tr>
<tr>
<td>2.5</td>
<td>7.3</td>
<td>6.05</td>
<td>4.95</td>
<td>4.2</td>
<td>3.64</td>
</tr>
<tr>
<td>3</td>
<td>5.04</td>
<td>3.7</td>
<td>3</td>
<td>2.5</td>
<td>2.17</td>
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<tr>
<td>3.5</td>
<td>3.7</td>
<td>2.42</td>
<td>1.96</td>
<td>1.64</td>
<td>1.4</td>
</tr>
<tr>
<td>4</td>
<td>2.82</td>
<td>1.68</td>
<td>1.34</td>
<td>1.1</td>
<td>0.95</td>
</tr>
<tr>
<td>4.5</td>
<td>1.94</td>
<td>0.88</td>
<td>0.69</td>
<td>0.56</td>
<td>0.47</td>
</tr>
<tr>
<td>5</td>
<td>1.37</td>
<td>0.51</td>
<td>0.39</td>
<td>0.32</td>
<td>0.26</td>
</tr>
<tr>
<td>6</td>
<td>0.72</td>
<td>0.31</td>
<td>0.23</td>
<td>0.19</td>
<td>0.15</td>
</tr>
<tr>
<td>7</td>
<td>0.38</td>
<td>0.17</td>
<td>0.14</td>
<td>0.11</td>
<td>0.09</td>
</tr>
<tr>
<td>8</td>
<td>0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Due to its unique composition, Speedwall® provides exceptional fire resistance over a long period of time. However, to achieve the stated fire resistance ratings, it is critically important to adhere strictly to the design, installation and construction details in this manual otherwise the fire resistance rating may be degraded.

Speedwall® fire rated wall systems have been tested and appraised by the Building Research Association of New Zealand (BRANZ) and tested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in New South Wales, Australia. In some cases, a fire resistance rating has been based on opinion from the same organisations.

Where specific noise control performance is required, Speedwall® can provide a number of proven, acoustic-rated wall systems (see section 5), or can assist in developing a fully customised solution.

**IMPORTANT:** In order to satisfy the requirements of New Zealand Building Code (clause 4) relating to “structural stability during fire”, designers must ensure that Speedwall® elements are supported by primary elements that have at least the same fire rating as the Speedwall® system that is used.

---

### Speedwall® fire rated system FS1

#### 78mm wide

System FS1 comprises of 78mm Speedwall® panel, with no linings attached. Standard Speedwall® C Track is used around the perimeter of the wall.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>FS1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadbearing Capability</td>
<td>NLB</td>
</tr>
<tr>
<td>Fire Resistance Rating</td>
<td>– / 240 / 60</td>
</tr>
<tr>
<td>Lining Requirements</td>
<td>Nil</td>
</tr>
<tr>
<td>Sound Transmission Class</td>
<td>40</td>
</tr>
<tr>
<td>System Weight Approx</td>
<td>41kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.

Exceptionally strong yet lightweight, the interlocking panels can be easily erected by a small crew, making Speedwall® much faster to install than conventional wall systems.
Due to its unique composition, Speedwall® provides exceptional fire resistance over a long period of time.

However, to achieve the stated fire resistance ratings, it is critically important to adhere strictly to the design, installation and construction details in this manual otherwise the fire resistance rating may be degraded.

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Where specific noise control performance is required, Speedwall® can provide a number of proven, acoustic-rated wall systems (see section 5), or can assist in developing a fully customised solution.

**IMPORTANT:** In order to satisfy the requirements of New Zealand Building Code (clause 4) relating to “structural stability during fire”, designers must ensure that Speedwall® elements are supported by primary elements that have at least the same fire rating as the Speedwall® system that is used.

---

**Speedwall® fire rated system FS2**

**78mm wide**

System FS2 comprises of 78mm Speedwall® panel, with no linings attached. Standard Speedwall® C Track is used around the perimeter of the wall with Speedwall® Fire Flashing fixed to both sides of the top Speedwall® C Track.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>FS2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadbearing Capability</td>
<td>NLB</td>
</tr>
<tr>
<td>Fire Resistance Rating</td>
<td>– / 240 / 120</td>
</tr>
<tr>
<td>Lining Requirements</td>
<td>Nil</td>
</tr>
<tr>
<td>Sound Transmission Class</td>
<td>40</td>
</tr>
<tr>
<td>System Weight Approx</td>
<td>41kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.
4 Speedwall® Fire Rated Systems

Speedwall® fire rated system FS3
104mm wide
System FS3 comprises of standard 78mm Speedwall® panel, with a layer of 13mm GIB Fyreline® plasterboard each side.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>Loadbearing Capability</th>
<th>Fire Resistance Rating</th>
<th>Lining Requirements</th>
<th>Sound Transmission Class</th>
<th>System Weight Approx</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS3</td>
<td>NLB</td>
<td>0/ 240 / 180</td>
<td>1 x 13mm GIB Fyreline® each side</td>
<td>42</td>
<td>62.6kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.

Lining
1 layer of 13mm GIB Fyreline® plasterboard each side of the wall.
Full height sheets shall be used where possible.
Sheets shall be touch fitted.
Offset joints between sheets by 600mm on opposite sides of the wall.
All sheet joints must be formed over the outermost face of the Speedwall® panels. Linings are fixed hard to floor.

Fastening the lining
Fasteners
25mm x 6g GIB® Grabber™ Scavenger head Drywall self tapping screws

Fastener centres
300mm centres vertically every 600mm horizontally.
No fixing to top and bottom Speedwall® C Track.
Adhesive fixing cannot replace mechanical fasteners in Speedwall® Fire Rated Systems.

Jointing
All screw heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled “GIB® Site Guide”.

Due to its unique composition, Speedwall® provides exceptional fire resistance over a long period of time.

However, to achieve the stated fire resistance ratings, it is critically important to adhere strictly to the design, installation and construction details in this manual otherwise the fire resistance rating may be degraded.

Speedwall® fire rated wall systems have been tested and appraised by the Building Research Association of New Zealand (BRANZ) and tested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in New South Wales, Australia. In some cases, a fire resistance rating has been based on opinion from the same organisations.

Where specific noise control performance is required, Speedwall® can provide a number of proven, acoustic-rated wall systems (see section 5), or can assist in developing a fully customised solution.

IMPORTANT: In order to satisfy the requirements of New Zealand Building Code (clause 4) relating to “structural stability during fire”, designers must ensure that Speedwall® elements are supported by primary elements that have at least the same fire rating as the Speedwall® system that is used.
Due to its unique composition, Speedwall® provides exceptional fire resistance over a long period of time.

However, to achieve the stated fire resistance ratings, it is critically important to adhere strictly to the design, installation and construction details in this manual otherwise the fire resistance rating may be degraded.

Speedwall® fire rated wall systems have been tested and appraised by the Building Research Association of New Zealand (BRANZ) and tested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in New South Wales, Australia. In some cases, a fire resistance rating has been based on opinion from the same organisations.

Where specific noise control performance is required, Speedwall® can provide a number of proven, acoustic-rated wall systems (see section 5), or can assist in developing a fully customised solution.

**IMPORTANT:** In order to satisfy the requirements of New Zealand Building Code (clause 4) relating to “structural stability during fire”, designers must ensure that Speedwall® elements are supported by primary elements that have at least the same fire rating as the Speedwall® system that is used.

---

**Speedwall® fire rated system FS4**

**206mm wide**

System FS4 comprises of 2 standard 78mm Speedwall® panels with a 50mm cavity.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>FS4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadbearing Capability</td>
<td>NLB</td>
</tr>
<tr>
<td>Fire Resistance Rating</td>
<td>-- / 240 / 240</td>
</tr>
<tr>
<td>Lining Requirements</td>
<td>Nil</td>
</tr>
<tr>
<td>Sound Transmission Class</td>
<td>55</td>
</tr>
<tr>
<td>System Weight Approx</td>
<td>82kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.
Speedwall® Noise Control Systems

Speedwall® noise control system NCS1
78mm wide

System NCS1 comprises of 78mm Speedwall®, with no linings attached. Standard Speedwall® C Track is used around the perimeter of the wall.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>Loadbearing Capability</th>
<th>Fire Resistance Rating</th>
<th>Lining Requirements</th>
<th>Sound Transmission Class</th>
<th>System Weight Approx</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCS1</td>
<td>NLB</td>
<td>~ / 240 / 60</td>
<td>Nil</td>
<td>40</td>
<td>41kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.

<table>
<thead>
<tr>
<th>Centre Frequency Hz</th>
<th>Sound Transmission Loss : R dBA</th>
<th>Rw Reference Curve, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>125</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>160</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>250</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>315</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td>400</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>500</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>630</td>
<td>39</td>
<td>41</td>
</tr>
<tr>
<td>800</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>1000</td>
<td>42</td>
<td>43</td>
</tr>
<tr>
<td>1250</td>
<td>43</td>
<td>44</td>
</tr>
<tr>
<td>1600</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>2000</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td>2500</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>3150</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>4000</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>5000</td>
<td>42</td>
<td>44</td>
</tr>
</tbody>
</table>

Spantech Buildings found Speedwall® to be a cost effective alternative to pre-cast concrete panels for the inter-tenancy walls in their Taupo Motorpark development.

Speedwall® provides a full range of Noise Control Systems with STC ratings from STC 40 to STC 80.

All Speedwall® Noise Control Systems have a minimum Fire Resistance Rating (FRR) of ~/240/60.

The Noise Control Systems detailed in this manual cover common situations where sound control is required. Where a specific performance is required (e.g. duct walls), Speedwall® will assist you to develop a customised noise control system.

Speedwall® Noise Control Systems have been tested at the Acoustic Testing Service, University of Auckland, The Acoustic Laboratory, Royal Melbourne Institute of Technology or have been derived from tested systems and based on acoustical opinion.
**Framing**

Steel stud dimensions to be 64 x 34 x 0.55mm nominal with 6mm return.

Steel channel dimensions to be 64 x 30 x 0.55mm nominal.

Channel runners are fixed to the floor and ceiling in true alignment.

Stud spacing at 600mm centres maximum. Place studs to allow a 15mm expansion gap at the top of the frame. The studs are held in place by the “grip” of the channel runners. No other fixing is to be used.

**Sound control infill**

R1.8 (75mm) Pink® fibreglass Batts® installed between the studs on the inside of the steel frame.

**Lining**

1 layer of 13mm GIB Noiseline® fixed vertically to framing.

Full height sheets shall be used where possible. Where sheet end butt joints are unavoidable, they must be formed over nogs with the same cross sectional dimensions as the studs.

Sheet joints are touch fitted. Sheet joints must occur on framing. The lining on both sides of the frame shall be fixed hard to the floor.

**Speedwall® noise control system NCS2 (duct & shaft walls) 175 mm wide**

System NCS2 comprises a standard 78mm Speedwall® panel, 20mm cavity, 64mm steel stud, R1.8 (75mm) Pink® Fibreglass Batts® and a layer of 13mm GIB Noiseline®.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>NCS2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadbearing Capability</td>
<td>NLB</td>
</tr>
<tr>
<td>Fire Resistance Rating</td>
<td>– / 240 / 120</td>
</tr>
<tr>
<td>Lining Requirements</td>
<td>1 x 13mm GIB Noiseline®</td>
</tr>
<tr>
<td>Sound Transmission Class</td>
<td>58</td>
</tr>
<tr>
<td>Rw (C,Ctr)</td>
<td>57 (-2 ; -8) dB</td>
</tr>
<tr>
<td>System Weight Approx</td>
<td>59kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.

**Fastening the lining**

**Fasteners**

25mm x 6g GIB® Grabber™ Scavenger Head Drywall Self Tapping screws.

**Fastener centres**

300mm centres up each stud.

No fasteners to top and bottom channel sections.

Place fasteners no closer than 12mm to the sheet edge.

**Acoustic sealant**

A bead of Speedseal Fire Resistant Joint Filler® is required around the perimeter of the lining.

**Jointing**

All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled “GIB® Site Guide”.

www.speedwall.co.nz
Speedwall® noise control system NCS3
(apartment inter-tenancy) 188mm wide

System NCS3 comprises a standard 78mm Speedwall® panel, 20mm cavity, 64mm steel stud, R1.8 (75mm) Pink® Fibreglass Batts® and a layer of 13mm GIB Noiseline® on one side, with a layer of 13mm GIB® Standard plasterboard on the other side.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>NCS3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadbearing Capability</td>
<td>NLB</td>
</tr>
<tr>
<td>Fire Resistance Rating</td>
<td>– / 240 / 120</td>
</tr>
<tr>
<td>Lining Requirements</td>
<td>1 x 13mm GIB Noiseline®</td>
</tr>
<tr>
<td></td>
<td>1 x 13mm GIB® Standard plasterboard</td>
</tr>
<tr>
<td>Sound Transmission Class</td>
<td>59</td>
</tr>
<tr>
<td>Rw (fC/Ctr)</td>
<td>58 (f-2 : -8) dB</td>
</tr>
<tr>
<td>System Weight Approx</td>
<td>68kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.

Fastener centres
300mm centres up each stud.
No fasteners to top and bottom channel sections.
Place fasteners no closer than 12mm to the sheet edge.

Acoustic sealant
A bead of fire resistant sealant is required around the perimeter of the lining.

Jointing
All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled “GIB® Site Guide”.

<table>
<thead>
<tr>
<th>Frequency f Hz</th>
<th>R One-third octave dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>18.8</td>
</tr>
<tr>
<td>63</td>
<td>25.5</td>
</tr>
<tr>
<td>80</td>
<td>27.6</td>
</tr>
<tr>
<td>100</td>
<td>34.2</td>
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<tr>
<td>125</td>
<td>36.8</td>
</tr>
<tr>
<td>160</td>
<td>41.1</td>
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<td>200</td>
<td>44.3</td>
</tr>
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<td>250</td>
<td>47.8</td>
</tr>
<tr>
<td>315</td>
<td>51.0</td>
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<td>400</td>
<td>54.0</td>
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<td>500</td>
<td>57.5</td>
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<td>630</td>
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<tr>
<td>800</td>
<td>63.4</td>
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<td>1000</td>
<td>66.1</td>
</tr>
<tr>
<td>1250</td>
<td>69.2</td>
</tr>
<tr>
<td>1600</td>
<td>71.1</td>
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<tr>
<td>2000</td>
<td>70.2</td>
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<td>2500</td>
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<tr>
<td>3150</td>
<td>69.2</td>
</tr>
<tr>
<td>4000</td>
<td>73.7</td>
</tr>
<tr>
<td>5000</td>
<td>76.8</td>
</tr>
</tbody>
</table>

Note: Bold values are used to calculate STC and Rw
Speedwall® noise control system NCS4 (theatre wall) 600mm wide

System NCS4 comprises a 600kg/m² Speedwall® panel with a layer of 90mm x 42kg/m² insulation attached to one face. There is a 444mm air gap then a second 600kg/m² Speedwall® panel.

<table>
<thead>
<tr>
<th>Specification Number</th>
<th>NCS4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loadbearing Capability</td>
<td>NLB</td>
</tr>
<tr>
<td>Fire Resistance Rating</td>
<td>/ 240 / 240</td>
</tr>
<tr>
<td>Lining Requirements</td>
<td>Nil</td>
</tr>
<tr>
<td>Sound Transmission Class</td>
<td>76</td>
</tr>
<tr>
<td>Rw (C,Ctr)</td>
<td>75 (-2; -9) dB</td>
</tr>
<tr>
<td>System Weight Approx</td>
<td>135.8kg/m²</td>
</tr>
</tbody>
</table>

For installation details refer to section 6.

This is one example of a high performance Speedwall® Noise control system typically used in movie theatres, lecture theatres, film studios etc. Generally, Speedwall® will work together with the project acoustic consultant to develop a customised solution depending on the specific needs of the project.

A variety of configurations are available depending on the construction of the building, the level of noise reduction required and the overall width of the wall design.

<table>
<thead>
<tr>
<th>Centre Frequency Hz</th>
<th>Sound Transmission Loss : R dB</th>
<th>Rw Reference Curve dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>63</td>
<td>30</td>
<td>7</td>
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<tr>
<td>80</td>
<td>46</td>
<td>7</td>
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<td>100</td>
<td>48</td>
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</tr>
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<td>125</td>
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<td>150</td>
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<td>200</td>
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<td>250</td>
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<td>400</td>
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<td>500</td>
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<td>1600</td>
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<td>2000</td>
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</tr>
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<td>2500</td>
<td>92</td>
<td>80</td>
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<td>3150</td>
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</tr>
<tr>
<td>4000</td>
<td>91</td>
<td>80</td>
</tr>
<tr>
<td>5000</td>
<td>90</td>
<td>80</td>
</tr>
</tbody>
</table>

This is one example of a high performance Speedwall® Noise control system typically used in movie theatres, lecture theatres, film studios etc. Generally, Speedwall® will work together with the project acoustic consultant to develop a customised solution depending on the specific needs of the project.

A variety of configurations are available depending on the construction of the building, the level of noise reduction required and the overall width of the wall design.

For installation details refer to section 6.

Speedwall® was used for the acoustic rated walls of New Zealand’s largest film studio and sound stage at Henderson in Auckland.
C Tracks or Angle sections are fixed to structural elements (steelwork) at 400mm centres with Hilti X-EDNI nails.

When fixing C-track or Angle sections to concrete, use M6.6 x 32 mushroom head spikes at 400mm centres.

Panels are fixed together with 10 x 16 screws on both sides at 1500mm centres.

A 25mm – 30mm bed of grout is poured into the bottom C-track just prior to installing the first panel.

The C-track or Angle section must have a 15mm bead of fire resistant sealant between the track and the structure it is being fixed to.

Corner joints should be sealed with fire resistant sealant.
Vertical Installation

- C-tracks or Angle sections are fixed to structural elements (steelwork) at 400mm centres with Hilti X-EDNI nails.
- When fixing C-track or Angle sections to concrete, use M6.6 x 32 mushroom head spikes at 400mm centres.
- The C-track or Angle section must have a 15mm bead of fire resistant sealant between the track and the structure it is being fixed to.
- Panels are fixed together with 10 x 16 screws on both sides at 1500mm centres.
- Corner joints should be sealed with fire resistant sealant.
Depending on requirements, Speedwall® can be installed horizontally or vertically. The first step is to fix C Track around the perimeter of the wall. In some situations, Angle sections are used instead of C Track for ease of installation.

C Track sections come in a standard profile with a 60mm nominal flange. When C Track is fixed to a concrete floor, it must be isolated from the slab by using fire rated sealant, to smooth out any irregularities in the surface of the concrete.

C Track and Angle sections are normally 3600mm long and should be fixed at not more than 400mm centres (unless specifically designed).

Fixings should be placed within 100mm from the end and should be specifically designed for loadings.

For fire and acoustic rated walls, the C Track or Angle section must have a bead of fire resistant sealant between it and the structure it is being fixed to.

**Cutting of Speedwall® panels**

Speedwall® panels can be cut to length with the use of a Sabre saw or Evacuated grinder to minimise dust.

Where Speedwall® panels are trimmed to width, the cut section of the panel is fitted with C Track and is always the last panel abutting the wall, column or soffit. The panel is then sealed and fixed in position.
For system FS2, a fire flashing is required at the top on both sides of the wall.
6 Installation Information

Horizontal installation
Horizontal installation of the Speedwall® panels requires C Track to be fixed to structural walls, columns, portals etc.

To ensure tightness of fixture, a 15mm bead of fire resistant sealant is run around the perimeter before the C Track or Angle sections are laid and fixed.

Grout is poured into the floor C Track just prior to the installation of the Speedwall® panels. This forms a bearing surface for the female end of the panel and is also a fire and acoustic rated seal.

The cementitious grout should be non shrink high performance (Hilti® CM651-48). Fill the C Track to a depth of 25-30mm. Any overflow when the panel is placed in the C Track must be wiped off immediately (Figure 2).

Ensure that the first panel is level after fitting into the C Track and grout. Screw fix panel to C Track (Figures 2 & 3).

Subsequent panels are placed in a tilt and snap action (Figure 4).

Last panel
To get the last horizontal panel in, the C Track is cut on one side approximately 400mm from the top of the wall (Figure 5).

The tab is folded back to allow entry of the last panel.

Fire resistant sealant is applied. The angle is then fixed to the soffit and panel (Figures 6 & 7).

Corners
Where internal or external corners are required, panels should be finished by fixing C Track to the vertical face.

C Track should also be fixed to the side of the finished wall channel. Fire resistant sealant must be used between the C Tracks. Fixing between C Tracks should be at 300mm centres (Figure 8).
15mm sealant bead between C Track/Angles and supporting platform

Grout filled base

20mm deflection head
**6 Installation Information**

**Vertical installation**
Vertical installation of the Speedwall® panels requires C Track to be fixed to walls, columns and soffits etc.
To ensure tightness of fixture, a 15mm bead of fire resistant sealant is run around the perimeter before the C Tracks or Angle sections are laid and fixed (Figure 1).
The first panel is placed inside the C Track (slightly tilting back) and is slid into the vertical position (Figure 2). The first panel is levelled and then fixed into position. Panels push into place respectively until the wall is nearly completed (Figure 3).

**Last panel**
Stop short of the end vertical Speedwall® C Track by approximately 1 metre and cut out a 600mm angle section from the top and bottom C Track. Plan ahead and make an allowance for a 50mm overlap onto the panels installed prior to the last remaining two panels (Figures 4 & 5).
Make your end cut ensuring that a distance of 500mm remains for the last two panels to be squeezed into position (Figure 6). Once in position, simply replace the angle and fix to panels. Screw the C Track and Angle sections to the panels in the normal fashion.
Figure 4

Figure 5

Figure 6

Figure 7

15mm sealant bead between C Track/Angles and supporting platform.
6 Installation Information

Doorways and windows
C Track is cut to the trim size for doors, windows and large penetrations. As the wall is assembled the C Track is fitted and sealed and fixed as per the standard details (Figure 1). An engineer must ensure that wind face load and panel self weight loads can be transferred at wall openings.

Penetrations
Where penetrations into Speedwall® are required, the use of a grinder, Sabre saw or hole saw to remove the steel shell is ideal. The aerated concrete is easily removed.

Any gaps in, or services that penetrate through fire rated construction are to be fire rated using certified proprietary systems such as fire collars, fire wraps, intumescent systems etc. The systems are to be installed as required by the certification and manufacturer of the product.

Speedwall® should be earthed where electrical equipment or unsheathed cables may come into contact with the metal work.

Plumbing and electrical services
Copper and brass piping should be isolated from direct contact with the steel shell. Similar care should be taken when contact with dissimilar metals is possible.

Shelf loads
Speedwall® can be used to carry shelf loads. The capacity of Speedwall® to carry shelf loading is dependant upon variables such as shelf design, shelf fastening methods, wall height and shelf location.

Fixing accessories
Where practical, services and accessories should be fixed through the male / female shell connections, where the steel shell has greatest thickness (1.2mm B.M.T.).

Where loads are higher e.g. 50 x 50 timber framing for an internal gutter, fixings should extend through the panel.

External wall installation
Speedwall® is designed for internal non load bearing walls. For external walls, we recommend that Speedwall® should be clad with an external weather proof system eg. a profile metal cladding. Speedwall® (NZ) Ltd can provide site specific details.
New Zealand Building Code (NZBC) compliance

Under normal conditions of dry internal use, Speedwall® systems have a serviceable life in excess of 50 years and satisfy the requirements of NZBC Clause B2 – Durability.

Speedwall® Fire Rated Systems can be used to provide passive fire protection in accordance with the requirements of NZBC Clause C3 – Spread of Fire.

In order to satisfy the requirements of NZBC Clause C4 – Structural Stability during Fire, designers must ensure that fire rated elements are supported by elements having at least the same Fire Resistance Rating (FRR). Collapse of elements having a lesser FRR shall not cause the consequential collapse of elements required to have a higher FRR.

Quality control

The performance ratings of the published systems have been obtained by independent testing and opinions sourced from organisations with accredited quality assurance. It is of prime importance to pay strict attention to the details of design, construction and workmanship, otherwise the performance could be significantly degraded.

Design guidelines

The recommended maximum span for Speedwall® Fire Rated Systems is 4000mm. Greater spans are subject to specific engineering design.

Limitations

Adhesive fixing cannot replace mechanical fasteners in Speedwall® Fire Rated Systems.

Do not install Speedwall® above the span and height limits stated in this booklet.

Transport, handling, and storage

Generally, lengths of Speedwall® are delivered to site by long trailers and articulated trucks and access to and on building sites must be adequate to accommodate these types of vehicles.

Off loading and site storage or craneage onto site is the responsibility of the client and suitable arrangements should be made prior to delivery.

Speedwall® products are packed and protected against damage during delivery but care must be exercised during unloading.

Lengths must be adequately supported during unloading and where packs are broken and panels lifted by hand, care must be taken not to slide or drag the panel and scrape the finished surfaces of the product.

Where it is necessary for Speedwall® Panels to be stored on site they should be placed away from the building operations, if possible, in the order in which they will be fixed.

Store Speedwall® panels on site flat or in their pallets. Storage should provide a firm dry base, protected from the weather, accidental damage and moisture.

The panels should be stored on bearers not more than 2000mm apart.

Stack heights are limited to 10 pallets.

The Speedwall® panels must be stored under clean, dry and ventilated conditions.

Adequate cover should be provided and water must not be allowed to lie on the panel surfaces, which will cause staining and degradation of the surface coatings.

If bundles become wet the panels should without delay be separated, wiped with a clean cloth and stacked so that the circulation of air will complete the drying process.

Strippable film

Speedwall® panels will generally be coated with a plastic film to provide protection during handling and transportation. This film has a very short life when exposed to exterior conditions and must be removed immediately after installation. It must not be left lying in the sun or at the site for more than a few hours. Failure to remove the film will lead to difficulties later with its removal.

Cleaning

At the completion of the job and at the finish of each days work, it is essential that the completed area be thoroughly cleaned of all swarf, rivet stems, nails, drillings and screws, etc, normally associated with the installation of metal panels.

Hot swarf should not be allowed to contact pre-painted sheet material. Any grinding, welding or drilling carried out above the wall level should be done with the panels appropriately covered to avoid swarf contact.

Failure to do so will result in unsightly staining of the surface as the metal particles rust or oxidise.

On site handling

Handle units carefully prior to their installation. Avoid knocks, bumps and scratches, which may lead to maintenance issues later. Keep Speedwall® dry prior to installation.

Installation

Specific design advice should be sought where Speedwall® is to be subject to point loads or other distributed loading other than wind.

Ensure connection between Speedwall® panels are properly made.

Ensure connections of Speedwall® panels to the structure are adequate.
6 Installation Information

Do not substitute any component
Speedwall® fire and noise rated systems are not generic. Where specified in this manual, branded components must be used when specifying and installing Speedwall® systems. Substituting any component of any system shown in this manual may compromise the performance of the system.

Material Safety Data Sheet
A Material Safety Data Sheet (MSDS) is available on request from Speedwall® (NZ) Ltd or from our website: www.speedwall.co.nz

Specification
Speedwall® have prepared a technical specification suitable for inclusion in contract documents by Architects, Engineers or Builders. This may be freely copied (in full) or reproduced (in full) and is available by contacting Speedwall® (NZ) Ltd or from our website: www.speedwall.co.nz

Warranty
Speedwall® (NZ) Ltd supplies the Speedwall® wall system and warrants it to be free from defects in material and workmanship. Speedwall® (NZ) Ltd will at its own option replace and/or repair any product found to be defective, provided it has been stored, installed and maintained strictly in accordance with the requirements and recommendations of Speedwall® technical literature. This warranty is in addition to any statutory rights to the customer.

Speedwall® (NZ) Ltd cannot be held responsible for deterioration to galvanised products caused by poor handling or storage practices after the product has arrived at the customers site.

All Speedwall® building products are designed to satisfy New Zealand conditions.

Disclaimer
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Maintenance
All cladding products are subject to the cumulative effects of weather, dust and other deposits. Maintenance regimes are to be in accordance with maintenance recommendations for New Zealand Steel Products used for roofing and wall cladding.

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Speedwall® can provide an effective sound barrier in any situation where noise is a problem.
Stamp of approval from the Post Office
Because it’s so quick and easy to install, Speedwall® helped New Zealand Post meet tight deadlines when building their mail sorting centres in Auckland, Hamilton and Christchurch.

Blockbuster hit at the Movies
With noise ratings up to STC 80 plus, and fire ratings up to −/240/240, Speedwall® played a leading role in the construction of Hoyts Cinemas in Sylvia Park and Berkeley Cinemas in Botany Downs.

Top performer at Taupo Motorpark
Spantech Buildings chose Speedwall® for the inter-tenancy walls of their Taupo Motorpark development because it was faster than any other option.

Honoured at Auckland University
After carefully studying all the options, Fletcher Construction chose Speedwall® for the Auckland Business School lecture theatres, lift shafts and stairwells.

The fastest way to the top floor
Speedwall® is easily the simplest way to build lift shafts, ducts and stair spline walls in any project where speed of construction really counts.

The key to apartment privacy at Scene 3
Because their inter-tenancy walls are made of Speedwall®, Scene 3 apartment owners never lose a night’s sleep over the goings on next door.