

# INTEGRA Lightweight Concrete Intertenancy System - Integra Intertenancy System (50mm panel) over Timber Frame RenderSpec

## General

### Description of Works/Specification Notes

The INTEGRA Lightweight Concrete Intertenancy System is a proprietary high-performance wall system that provides you tested systems for resistance to horizontal fire and acoustic separation between adjacent tenancies in the same building

## Building Code Compliance

If the project has a building consent then the following clauses apply.

### B2 - Durability

This specification complies with the requirements as set out in B2 - Durability which must always be considered when demonstrating compliance with each of the clauses of the Building Code. It ensures that a building throughout its life will continue to satisfy the performance of the Building Code. It confirms the use of materials that will remain functional throughout the specified intended life of the building, but not less than 50, 15 or 5 years

### C - Protection from Fire

This specification complies with the requirements as set out in C - This clause provides objectives that apply to clauses C2 to C6 to: (a) safeguard people from an unacceptable risk of injury or illness caused by fire, (b) protect other property from damage caused by fire, and (c) facilitate firefighting and rescue operations.

### Building Consent Authority Requirements

All the appropriate inspections are to be carried out by a BCA representative and that it complies with the NZBC requirements.

## Documents

### Abbreviations

The following abbreviations are used throughout this work section:

- BCA - Building Consent Authority
- LBP - Licensed Building Practitioner
- MSDS - Material Safety Data Sheet
- NZBC - New Zealand Building Code

### Manufacturers Documents

Copies of the above relevant company documents referred to in this specification are available at;

Resene Construction Systems  
Web: [reseneconstruction.co.nz](http://reseneconstruction.co.nz)  
Telephone: [0800 50 70 40](tel:0800507040)

### No Substitutions

Substitutions are not permitted to any specified Resene Construction Systems system. Materials and execution to Resene Construction Systems specification except where varied by this specification and supported by architectural detailing.

## Documentation

### Health and Safety

Refer to the requirements of the Health and Safety in Employment Act 2015 and Worksafe NZ: Guidelines for the provision of facilities and general safety in the construction industry. If the elimination or isolation of potential hazards and risks is not possible then minimise hazards and risks in this work on site by using the proper equipment and techniques as required in the MPNZA Painters hazard handbook. Supply protective clothing and equipment. Inform employees and others on site of the hazards and put into place procedures for dealing with emergencies. Obtain from Resene Construction Systems the Material Safety Data Sheets for each product. Keep sheets on site and comply with the required safety procedures. Confirmation at the start of the project as to whether a Site Specific Safety Plan is to be produced by the Registered Plasterer prior to works starting.

## Warranty

Warrant this system under normal environmental and use conditions against failure. Resene Construction Systems system warranty. Materials: by Resene Construction Systems - 15 Years Materials only

## Components Used

### Intertenancy Pack (Timber Frame)

Includes:-

- 50 brackets
- 100 Dampners
- 50 x 75mm x 10g Screws
- 50 x 45mm x 10g Screws

### Integra Panel 50mm Panels

- Dry Density: 520kg/m<sup>3</sup>
- Compressive strength : 4mPa
- Modulus of Elasticity, E: 1800MPa
- Thermal Conductivity: 0.12 W/(mk)
- Thermal Resistivity, R: 0.29m<sup>2</sup>K/W
- Substrate Thickness: 50mm Integra panel
- Weight: 32 kg/m<sup>2</sup> coatings and substrate, considered a Medium weight cladding in terms of NZS3604
- Panel size = 2200mm x 600mm

### Wurth Zinc Spray Light Perfect

- Outstanding long-term protection and optimum metal surface appearance
- High layer thickness in first spray pass
- High degree of safety thanks to optimum weathering protection
- Minimum amount of time spent, as only one operation is required
- Good coverage
- Versatile use with adjustable spray head
- Large area and minor repairs can be carried out quickly and reliably with the variable spray head.
- High degree of resistance to running
- High degree of wear resistance
- Tested corrosion protection in accordance with DIN
- Can be used for repairs in accordance with DIN EN ISO 1461
- Supplied in 400ml spray cans

### AAC Adhesive

- Polymer-modified, cement based dry plaster mix. Supplied in 20kg bags.

### Firewool™

FireWool™ ceramic fiber blanket for applications requiring thermal management, and passive fire protection. It is widely used in the construction sector, power generation facilities, iron and steel, Aluminum /non-ferrous metal, glass, ceramic, and aerospace industries to prevent high temperature thermal and acoustic transfer.

## Installation/Application

### Integra Intertenancy Pack - Timber Frame

## General

Before commencing any work onsite, ensure the site is clean and tidy. Where possible try and minimise any vibration or impact directly or indirectly on the INTEGRA during installation this will assist with minimising mortar between panels being broken before it cures/sets.

### Step 1- Framing

All framing should be installed as specified in the construction drawings and should be straight and plumb. The INTEGRA system requires framing to be set out in accordance with NZS3604:2011 for timber frames or E2/AS4 (NASH Handbook: Best Practice for Design and Construction of Residential and Low-Rise Steel Framing) for steel framed walls.

Install the framing to one side of the Intertenancy Wall first.

It is recommended to install strapping tape to the framing prior to installing the central barrier to ensure the insulation is held in place.

### Step 2 - Installation of brackets

You will need two brackets per panel with spacing governed by stud centres (approximately 1 bracket per lineal metre) of wall to secure a row of panel to one frame.

Starting at one end of the framing, install a bracket to the end stud so that it is located 300mm from the Finished Floor Level. Ensure that the face of the dampener on the bracket has been installed 20-40mm (depending on the specified cavity size) off the line of the framing.

Use the Resene Construction Systems 12gx45mm Galvanised screw with EPDM Washer to secure the Intertenancy Bracket to the structure.

Every second stud should have a bracket installed in the same location. The use of a string line will help to ensure your brackets are kept straight.

Once you have located the first row of panels you can continue to install brackets at 600 centres up the stud starting from the first bracket to the stud. A useful way to do this is to install the bottom and top brackets on the wall and then use a straight edge to align the brackets and ensure they are all on the same plane. You can use a level to ensure these are installed in a plumb position.

### Step 3 - Mixing and Application of mortar, install the bottom row of Integra panel

Mix up 2-3 kg's of Resene Construction Systems PSL AAC Adhesive to get you started, mix to a smooth consistency and when you can run your finger through it and the plaster remains standing you are ready to apply it (approximately 4 litres of water per 20kg bag)

The first row of panels must be bedded to the concrete floor slab using AAC Adhesive. To do this, apply AAC Adhesive to the long edge of an Integra Panel using a spatula/broad-knife.

Then lift and position the panel so that it is installed horizontally and is resting against two brackets in a plumb position. Ensure that there are no gaps between the panel and the floor slab.

### Step 4 - Installation of Integra Panel in the wall cavity

Continue along the length of the wall installing the Integra panel to form the central barrier. Ensure that vertical edge of the panels is bonded together using the AAC Adhesive.

Ensure that all full-length panels have 2 clips per panel to secure the panel to one side of the framing. Where you have a section of panel that is less than 600mm then no bracket is required, you can rely on the AAC adhesive to bond the panels together where this occurs.

Any panels can be cut onsite using a circular saw equipped with a diamond tipped blade. Ensure that a dust extraction unit is used as well as PPE (including glasses, dust masks, hearing protection and gloves).

Any steel reinforcement that is exposed during the cutting must be coated with an anti-corrosion coating.

Any minor damage should be patched using the AAC Adhesive; this will ensure the acoustic performance and fire protection is maintained.

### Step 5 - Screw fixing the panels to the brackets

As each panel is positioned, secure it to the corresponding intertenancy brackets. The screw is installed blind from the far side of the panel. To do this drill a 2-3mm pilot hole through the existing hole in the Intertenancy bracket and through the Integra Panel Central barrier.

Use a Resene Construction Systems 12gx75mm Galvanised screw with EPDM Washer to secure the Integra Panel to the Intertenancy Bracket through the pilot hole you have drilled.

Continue to install the central barrier of Integra Panel in a stacker bond pattern (each sheet on top of each other so that the joins align) using the AAC Adhesive to bond the panels together.

### Step 6 – Install the framing to the other side of the central barrier

Once you have installed the central barrier 4 panels high it is recommended to install the wall on the other side of the barrier. Once this is installed the brackets can be installed. The brackets should be installed so that they are not directly opposite the brackets on the opposing side.

### Step 7 - Installation of services

Ensure you sequence the installation of your services so that you minimise the amount of penetrations through the framing. Under no circumstances is the INTEGRA Panel central barrier to be penetrated with a service. The best time to install the services is once the Integra Panel central barrier has been completed.

## Step 8 - Installation of Insulation

The installation of the insulation should be completed as per the manufacturer's specifications. The insulation must completely fill the space between the framing. If there is any gaps between the insulation and framing then the acoustic performance will be compromised. When installing the insulation please ensure that it is not pushed back against the central barrier. It is recommended to install strapping tape to the framing prior to installing the central barrier to ensure the insulation is held in place.

## Step 9 - Installation and finishing of Plasterboard

Plasterboard can be fixed either vertically or horizontally. Sheets shall be touch fitted. When fixing vertically, full height sheets shall be used where possible. All sheet joints must be formed over solid timber framing.

A bead of acoustic sealant is required around the perimeter of the wall lining.

If the wall lining forms part of the structural bracing system, the lining type and fixings must comply with the published bracing system. Check requirements for specific bracing element hold down connections.

Jointing and finishing of plasterboard is to be as per the manufacturer's instructions to meet requirements of AS/NZS 2589:2017.

## Step 10 - Finishing services

Any gaps through the plasterboard should be sealed using an acoustic rated sealant. The installation of the sealant should be completed in accordance with the manufacturer's specifications.

If the framing is loadbearing (i.e. supporting a floor from a different fire cell) then all service penetrations will need to be fire stopped. Please consult with your fire engineer around the best method of doing this.

## Integra IT Panel 50mm

### Firewool™

RCS Firewool™ is specifically designed to meet the fire protection requirements for inter-tenancy walls in multi-residential applications. Firewool to be applied to assist with passive fire protection where gaps have been left between the central barrier system and wall and roof edges.

**Important:**

*This specification must be read in conjunction with the Resene Construction Systems technical drawings.*

*No alteration to the Resene Construction Systems RenderSpec® is permitted.*

*All Technical Data Sheets are available at <https://reseneconstruction.co.nz/technical-library/technical-data-sheets/>*

*All Safety Data Sheets are available at <https://reseneconstruction.co.nz/technical-library/safety-data-sheets/>*