

# Design, Detailing & Installation Manual

## Ritek® Wall System

Version Jan 2025

### E INTERNAL FINISHING

Wall System Finishes Overview	E1
Interior Joint Setting	E2
Over Sheeting of the Ritek® Wall Systems	E3



Ritek® - the alternative, innovative & cost-effective building method.



XL Wall Panel



X-Plus Wall Panel



# Ritek® Wall Systems - Internal Finishing

Recommended guidelines for internal joint setting of Ritek® Wall® System.

## Interior Joint Setting of Ritek® Wall Panels

### Industry Standards

Refer to AS/NZS 2311:2009 Standard for guidance and recommended good practice for the preparation of specifications, the application and maintenance of decorative paint systems for use by the paint industry.

## Preparation for Joint Setting / Flushing Compounds

Ritek® Wall Panels can be covered in dust, mud and other contaminants following installation on project sites. The panels need to be cleaned of all contaminants to ensure of a quality finish being applied.

### Required Procedure:

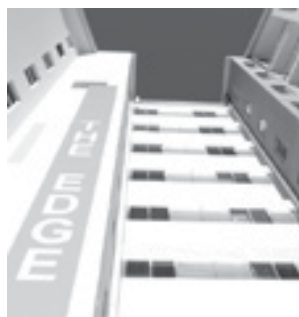
Ensure that the substrate surface condition meets the requirements of the jointing compounds and finishing systems being used at the time of application.

## Ritek® Panel Rebate Detail

Ritek® Wall® Panels are supplied with a standard FC sheet rebate detail to allow for jointing compounds and joint reinforcing tapes to be used. A standard FC sheet rebate detail is typically 0.5mm deep tapering to 1.5mm deep at the edge of the panel and 30mm wide.

### Required Procedure:

The rebate detail must be clean of any excess concrete, adhesive or any other contaminant. Fixing screws used during the panel installation must be set below flush with the surface or removed.



External



Lift Shafts / Internal Walls



Stairwells



Party Walls

## Ritek® Panel Moisture Content

Ritek® Wall Panels following core-fill, after heavy rain or during high humidity periods may result in a wet substrate surface. Due care is required to ensure the finishing systems are applied within the acceptable conditions of the system being applied. It is standard practice to ensure the substrate contains less than 20% Wood Moisture Equivalent (WME) before applying joint setting / patching materials and finishing system. Refer to the joint setting compound manufacturer's specification sheets.

## Aluminium Accessories

The Ritek® Wall System uses aluminium accessories for corners and nib end closers. All aluminium accessories are supplied etched with a chromate finish as a protective coating to prevent corrosion and a barrier to the concrete. During panel assembly, aluminium accessories can be cut to length, scratched, holes created for screw fixing etc. and can have dust, mud and other contaminants on them. It is important to ensure that the substrate surface condition meets the requirements of the jointing compounds and finishing systems being used at the time of application. Refer to the joint setting compound manufacturer's specification sheets.

## Internal Joint Setting

For setting to internal joints please refer to section I1 of this manual.



# Ritek® Wall Systems - Internal Finishing

## Wall System Finishes

The aesthetic appeal of the walls depends on:

- Correct installation of the panels
- Straightness / flatness of walls
- Choice of finishes for internal or external walls
- The amount of glancing light projected on the wall surface; and
- The quality of the applied paint or texture system.

### Lighting

Lighting design is very much a matter of cause and effect. The Australian Standard AS2589 details five levels of finish. It is recommended designers give consideration to the level of finish required and eliminate potential problems due to critical lighting.

### Interior Joint Setting and General Setting

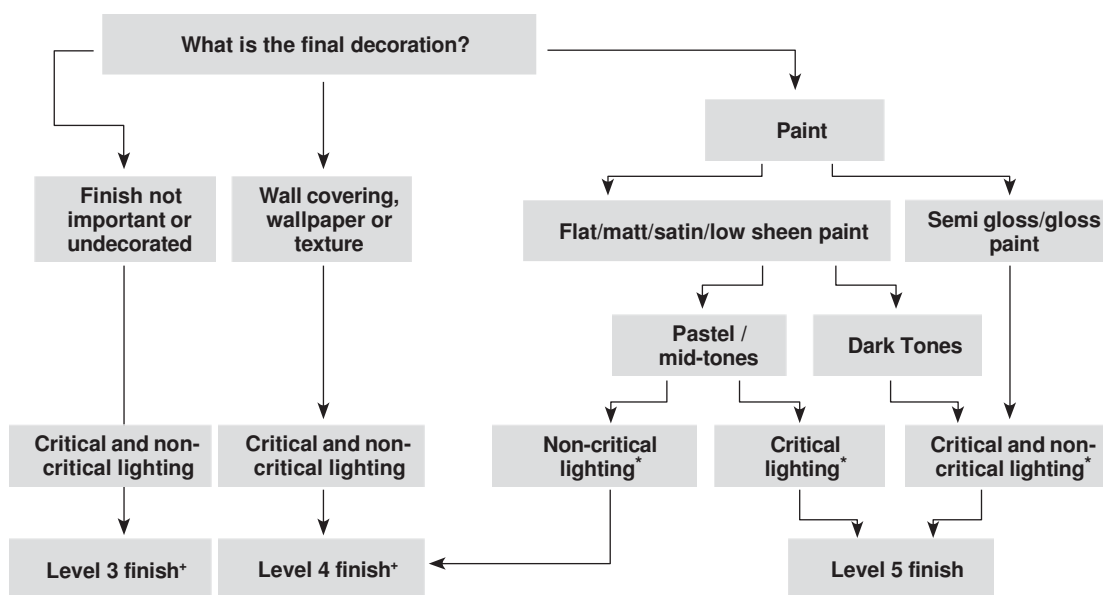
Procedures for flush jointing the Ritek® wall system panels are similar to jointing of any fibre cement sheeting lining. Ritek® guidance is to use products which are designed and recommended for flush joint setting of fibre cement lining/ sheeting.

### Internal Joint Setting

For setting to internal joints please refer to section I1 of this manual.

LEVELS OF FINISH AVAILABLE

CHART 5.1



\* Critical lighting: natural or artificial light projected across a surface at a low incidence angle.

Non-critical lighting: when the light striking the surface is diffuse or at right angles, or both.

\* May not be suitable for subsequent decoration to high levels of quality in the future.

See Level 4 or Level 5 for upgrading requirements.

# Ritek® Wall Systems - Interior Joint Setting

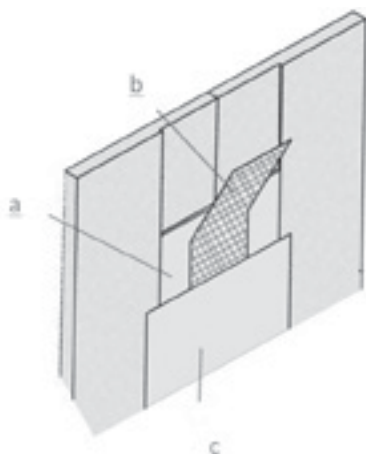
## Typical Joint Setting Application

### First Coat

- Apply Base Coat to fill the rebate using a 150mm broad knife.
- Embed the fibre mesh centrally over the joint using a 150mm broad knife ensuring there are no voids under the tape and remove excess compound.
- Immediately cover tape with thin layer of Base Coat applied using a 150mm broad knife.

FIRST COAT FINISHING

FIGURE 5.1

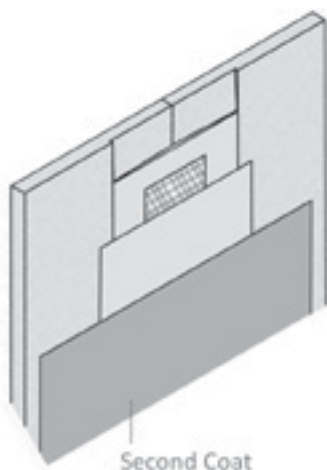


### Second Coat

When the base coat is fully dry, use a 150mm wide second coat trowel to apply the Base Coat. Apply this coat approximately 180mm wide, laid down over the rebate and feather the edges.

SECOND COAT

FIGURE 5.2

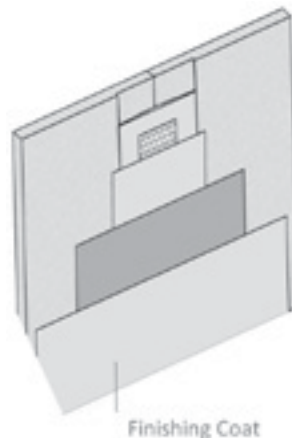


### Finishing Coat

Ensure the second coat is fully dry. Using a finishing trowel, apply a coat of Topcoat 200mm wide centrally over the joint and feather out the edges. Allow to dry fully before sanding.

FINISHING COAT

FIGURE 5.3



### Sanding and Finishing

- Allow the finish coat to dry at least 24 hours.
- Lightly Sand smooth with 150 grit paper or with 220 sanding mesh.
- Wipe off excess dust with a slightly damp cloth prior to painting.

### Corner Closer Setting

All Ritek® wall systems aluminium accessories are specially treated to ensure correct adhesion of industry standard finishing compounds and finishes.

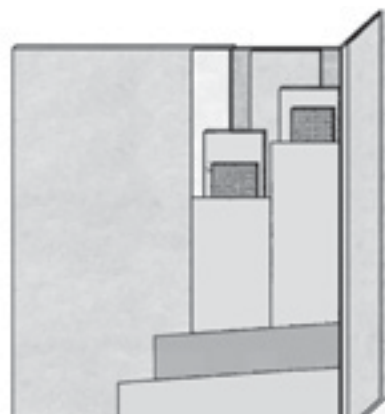
INTERNAL CORNER DETAIL

FIGURE 5.4



EXTERNAL CORNER DETAIL

FIGURE 5.5



## Ritek® Wall Systems - Interior Joint Setting

BASE COAT APPLIED

FIGURE 5.6



Figure 5.7 shows base coat application to a corner closer. A second coat is applied with the final sanded finish shown in Figure 5.8.

BASE COAT APPLIED TO CORNER CLOSER FIGURE 5.7



**Note:** Aluminium corner shown

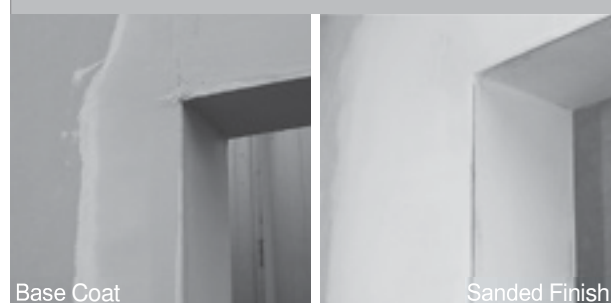
SANDED FINISH TO CORNER CLOSER FIGURE 5.8



### Setting of Nib Ends, Square-set Doors and Window Openings

Nib ends, square-set door and window openings are set to the standard aluminium track extrusion. Figure 5.9 shows base coat for window/door opening and the sanded finish.

BASE COAT WINDOW / DOOR OPENING FIGURE 5.9



Base Coat

Sanded Finish

### Setting of Tee-Junction Closers

Tee junction closers are set back approximately 1 mm from the line of the wall face to allow for a flush joint. The setting process is the same as for standard panel joints, Figure 5.10.

SETTING OF T-JUNCTION CLOSERS FIGURE 5.10



### Interior Panel Decoration

To achieve a satisfactory standard of finish it is recommended that a prime coat and two finish coats of "brand name" acrylic paints be applied in accordance with the paint manufacturer's recommendations. Correct setting and surface preparation is critical to ensuring an appropriate finish is achieved.

*Note: Paints, when subjected to critical light, may require a higher level of finish (Level 5) and hence cost implications.*

### Steps in Floor Levels

Where panels are joined horizontally at midfloor, due to a different floor slab height in the adjoining room, the horizontal joint may move due to differential movement in the structure. Provision should be made to express the joint or the wall should be sheeted over with plaster board or similar.

### Cracking and Peaking of Internal Joints

Fibre cement sheet constructions are prone to stress cracking if the correct design, installation and finish systems are not applied. Stress cracking is caused by a number of factors including structural movement, thermal expansion and contraction, improper construction, lack of adequately formed control and movement joints, improper fixing and a variety of other factors which are all beyond the control of Ritek®.

### Internal Joint Setting to Non Ritek® Panels

For joints between Ritek® Wall Panels and non Ritek® panels such as dry walls and stud partition walls, it is recommended to install an expansion joint or express the joint using a paintable flexible sealant. Walls having a different thermal mass are likely to expand and contract at different rates therefore flush jointing is not recommended.



## Ritek® Wall Systems - **Over Sheeting of the Ritek® Wall System**

**Over sheeting of the Ritek® Wall Systems can be achieved by using the following methods:**

- Batten and sheeting (recommended method)
- Direct stick plasterboard (optional method)

### **Batten and Sheeting of Plasterboard to Ritek® Wall Panels**

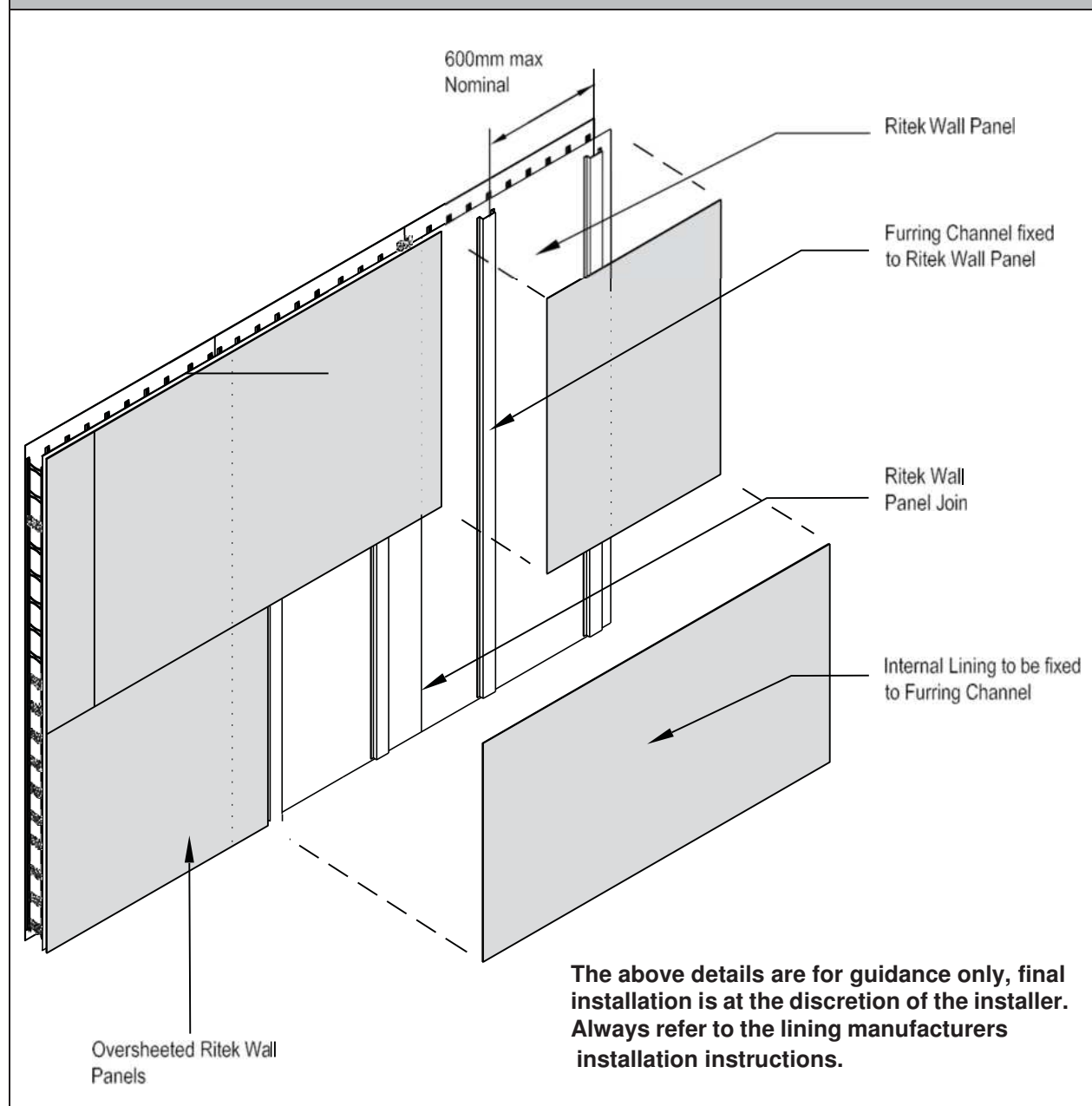
Ritek® recommends the batten and sheeting method using a furring channel/batten mechanically fixed to the Ritek® Wall Panel then sheeted with plasterboard.

The surface of the Ritek® Wall System must be flat, clean and dry prior to the installation of the battens and plasterboard sheeting.

The installation of the furring channel/battens, plasterboard and requirements for setting of the plasterboard joints is to be carried out in accordance with the installation and joint setting methods provided by the appropriate plasterboard supplier's installation and finishing guidelines.

**OVERSHEETING WALL PANELS BATTEN & SHEETING METHOD**

**FIGURE 5.11**





## Ritek® Wall Systems - **Over Sheeting of the Ritek® Wall System**

### Direct Sticking of Plasterboard to Ritek® Wall Panels

'Direct stick plasterboard' is a term used for directly adhering plasterboard lining to the Ritek® Wall System. The surface of the Ritek® Wall System must be flat, clean, dry and free of dust, oil and other elements that may reduce the plasterboard adhesive performance.

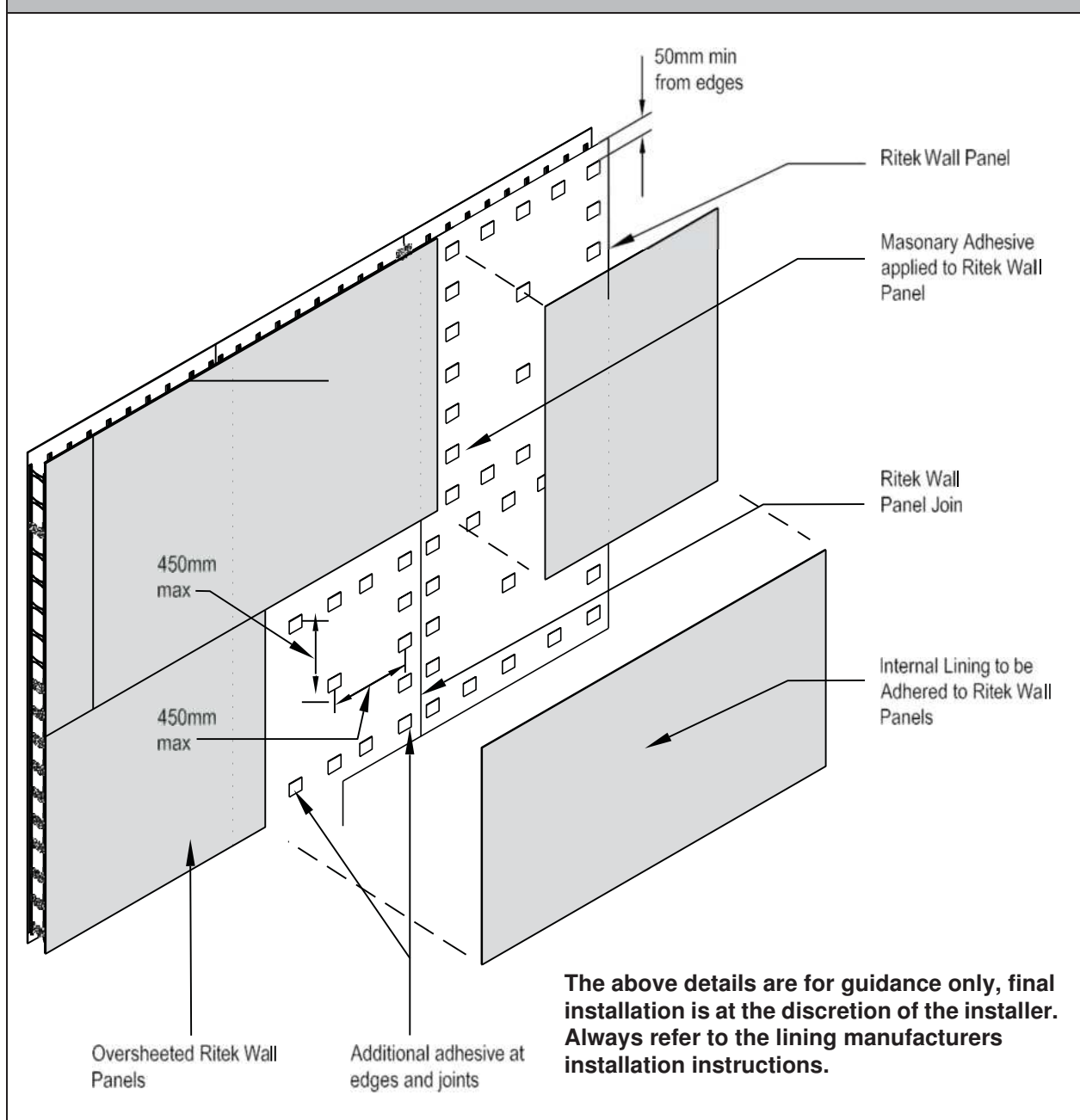
Daubs of plasterboard adhesive are applied to the Ritek® Wall System surface or to the back of the plasterboard sheets at 450mm centres maximum vertically and horizontally. Additional daubs of plasterboard adhesive can be used at butt joints of the plasterboard for additional adhesive strength. Plasterboard sheets must be held in position until adhesive sets by using temporary masonry nails as required.

The installation of the plasterboard and requirements for setting of the plasterboard joints is to be carried out in accordance with the installation and setting methods provided by the respective plasterboard supplier / manufacturer's installation and finishing guidelines.

When direct sticking plasterboard to walls requiring an acoustic rating, plasterboard adhesive may need to be trowelled on to prevent a drummy effect when wall is impacted. Please discuss with your acoustic consultant prior to installation.

**OVERSHEETING WALL PANELS MASONRY ADHESIVE METHOD**

**FIGURE 5.12**





Ritek Systems Pty Ltd

[www.ritek.com.au](http://www.ritek.com.au)

1300 152 857



XL Wall Panel



X-Plus Wall Panel

