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Internal Linings

INSTALLATION GUIDE



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TE-SY-IL-Install 110715

General remarks on PBS Internal Linings

- This installation guide is to be used in conjunction with:
 - PBS Internal Linings specifications
 - Architects' specific details
 - PBS Corporate Folder
 - PBS Eterpan linings can be used for structural bracing. For more information refer PBS Bracing Manual.
 - This guide covers the use of **eterpan** and **european** lining in internal wall applications.

- The methods selected for this guide are based on experience from sites & have proven to give the best results. The sequence of the work steps as well as their implementation may vary more or less due to different building situations.

- Further details are available in the PBS folder or from the website

www.pbs.co.nz

Preliminary checks

- Ensure that new / existing support framing is suitable.
 - NZS3602 “Timber and wood-based products for use in buildings” for timber treatment allowable moisture content
 - NZS 3604 “Timber framed buildings”
- Framing studs to be provided at 600mm centres max. and noggings at 1200 centres max.
- The minimum size for steel stud framing shall be 64mm deep x 35mm wide and 0.55 BMT, steel sections shall be suitably coated to comply with NZBC durability requirements.
- For tiled wall applications it is recommended to use 0.75mm BMT steel framing.
- Ensure **eterpan** & **european** sheets are stored flat on a flat surface, covered and kept dry.

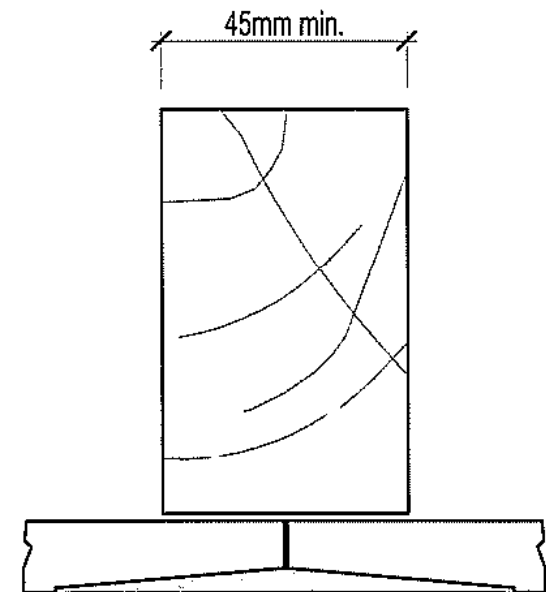
| CURVED RADII | Min. Radius | Framing Centres |
|-----------------|-------------|-----------------|
| 6.0mm thickness | 1200mm | 400mm |
| 9.0mm thickness | 1800mm | 400mm |

Products

- eterpan Refined** or **europan** sheets for Internal Linings.
- For exposed fixings use 40mm x 10g SS screws with SS 10g cup head washers.
- Or use No 8 x 40mm Surefast screws for countersunk fixings (**eterpan Refined** only).
- 40 x 2.8mm SS clouts for nail fixing, available in 5kg packs (**eterpan Refined** only).
- Sika Nailbond PREMIUM, Sika primer -3N for adhesive fix.
- Or Bostik PanelTack HM, Primer MSP, Primer P and double sided tape for adhesive fix.
- Bostik SAFEFIX Sealant, available in 330 ml or 600 ml sausage.
- PE Foam tape, 48mm x 1.6mm
- Eterstop flushing compound and mesh tape.
- Aluminum sockets 0.7mm x 70mm and 9 x 6mm Foam tapes for expressed joints.
- 70mm x 30m roll PVC Duct tape. For separation between dissimilar materials.
- 3m PVC Joint moldings in 4.5mm, 6.0mm & 9.0mm sizes.
- 3m PVC Control Joint moldings.

Step 1: sheet fixing – FLUSH JOINTS (**eterpan Refined** only)

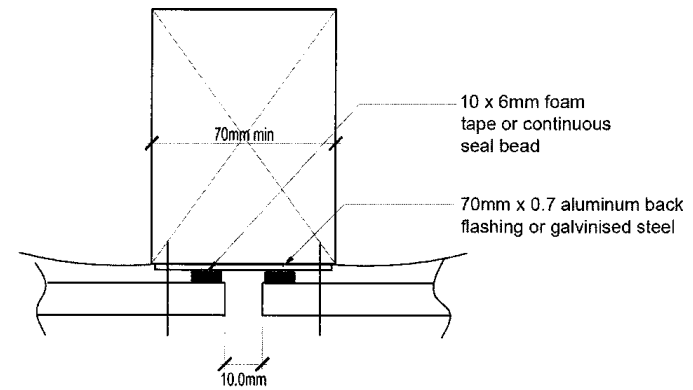
- Ensure a 6mm building tolerance gap is provided at the floor and ceiling junctions with PBS Internal Linings
- Fix sheets from centre out ensuring sheets are level.
- Control joints; vertical control joints at 7.2m centre intervals general applications.
- Control joints; Horizontal control joints at intermediate floors and 5.4m intervals
- Control joints required to coincide with seismic or construction joints.
- All edges of the sheets have to be supported by a stud or nogg.
- Ensure 1 – 2mm gap between sheets at vertical, horizontal, internal and external corner joints.



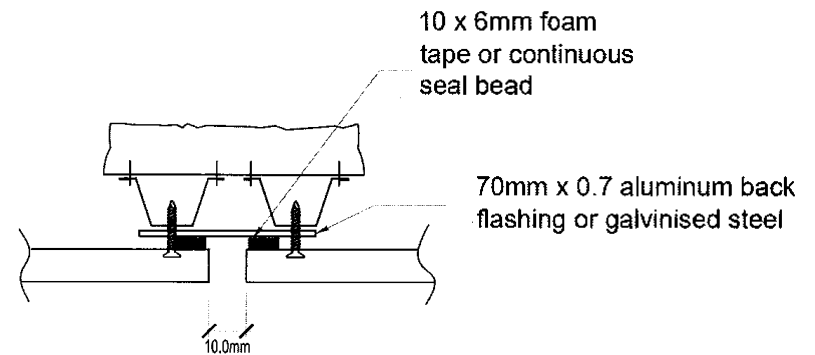
Sheet Joint Option - Taper & Flush

Step 2: sheet fixing layout – EXPRESSED JOINTS (**eterpan Refined** and **european**)

- No specific sheet lay out required for expressed joints.
- Fix sheets from centre out
- For timber framing min. 70mm wide timber required for expressed joints
- For metal channel framing, two channels required for expressed joints.
- Expressed joints required at changes in direction
- All edges of the sheets have to be supported by a joist or nogg.



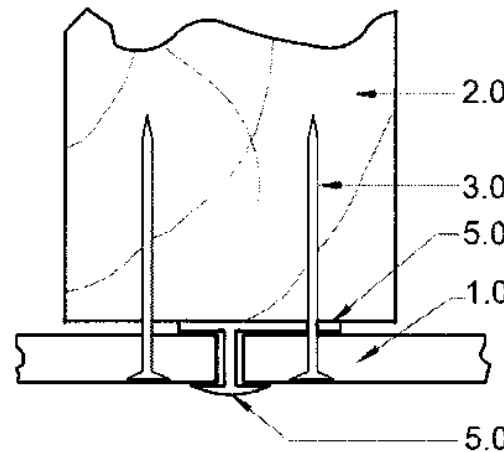
Detail A: Expressed Joint Timber Frame
Section X & Y



Detail A: Expressed Joint Metal Channel
Section X & Y

Step 3: Further sheet joint options

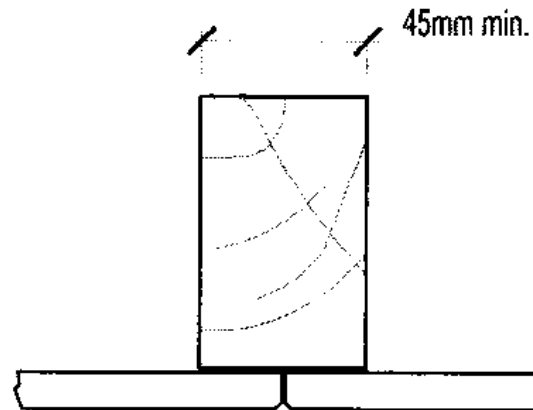
☐ PVC jointers



Key to tags:

- 1.0 Eterpan 4.5 & 6.0mm
- 2.0 Timber framing
- 3.0 SS clout 30mm
- 4.0 Rebated fascia board
- 5.0 PVC jointer
- 6.0 Timber moulding

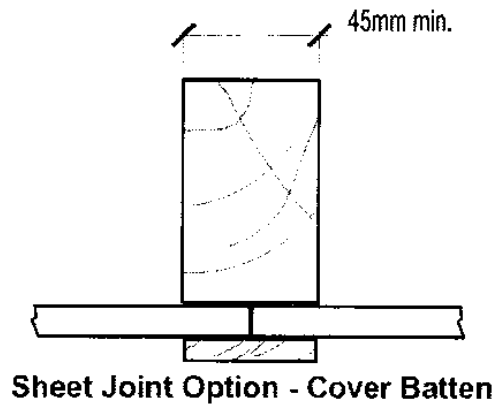
☐ Butt joint



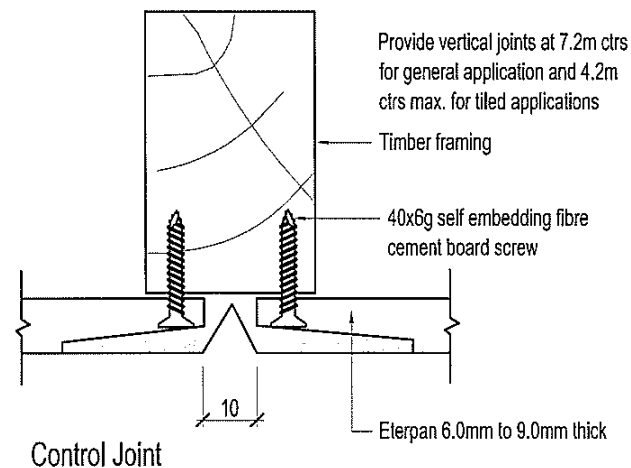
Sheet Joint Option - Butt Join

Step 3: Further sheet joint options

- ❑ Cover batten

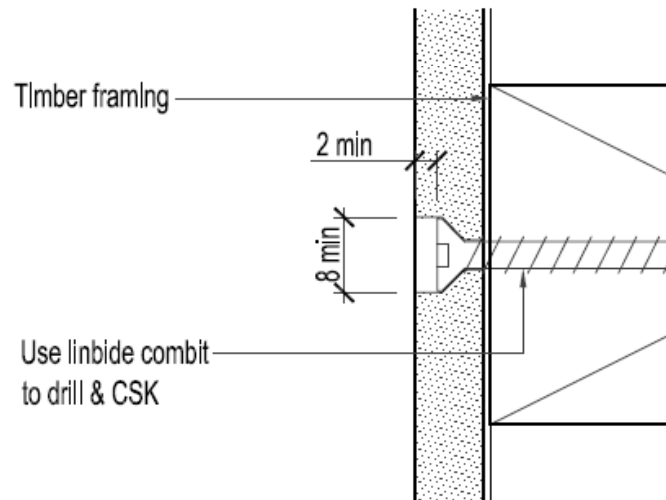


- ❑ Control joint



Step 4: Fix Sheets – option 1: countersunk fixing

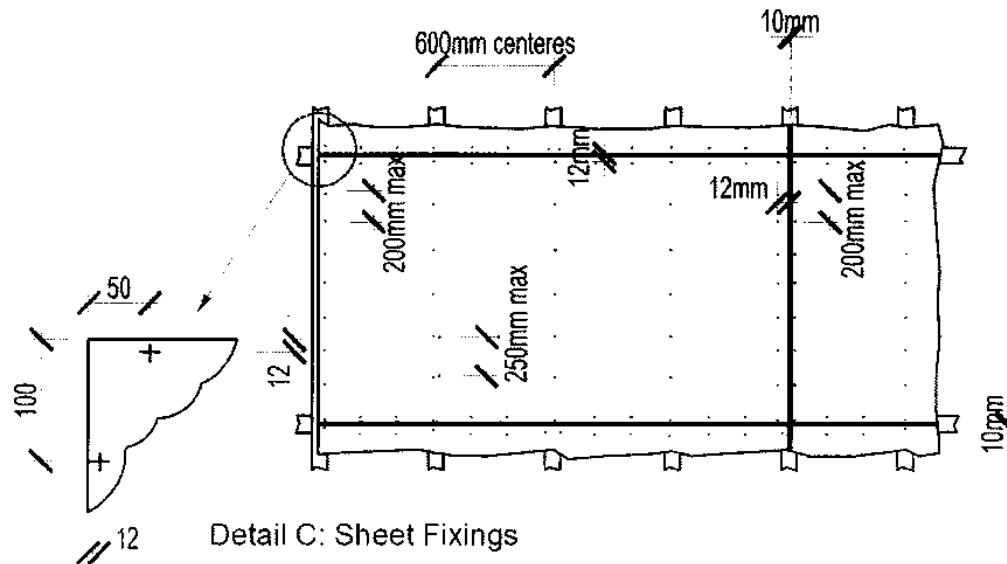
- ❑ Cut **eterpan Refined**, drill & countersink holes for screw fixed applications.
- ❑ Screw or clout fix **eterpan Refined** sheets @ max. 200mm crs to timber framing.



Section through flush fixing

Step 4: Fix Sheets – option 1: countersunk fixing

- ❑ Ensure minimum edge clearance of 12 mm for fixings through **eterpan** sheets .
- ❑ Contact adhesive can be used to intermediate nogs instead of screws.

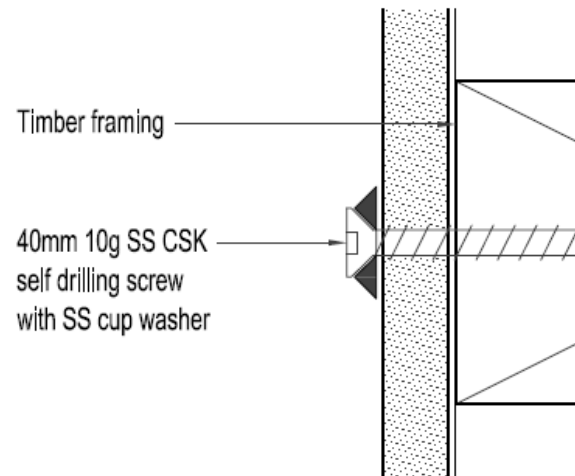


Step 4: Finishing for eterpan Refined

- Clean & prime screw holes ready for filling.
- Fill screw holes with Nuplex Epoxy Furring cream and scrape flush. **(Don't over apply Epoxy)**
- Flush off with Eterstop/PAL external contract filler.
- Sand screw holes smooth and flush
- Plaster finishing to joints with Eterstop joint flushing and finishing compound or similar approved product
- Use paper joining tapes for internal applications and mesh tapes for external soffits

Step 4: Fix Sheets – option 2: featured fixings

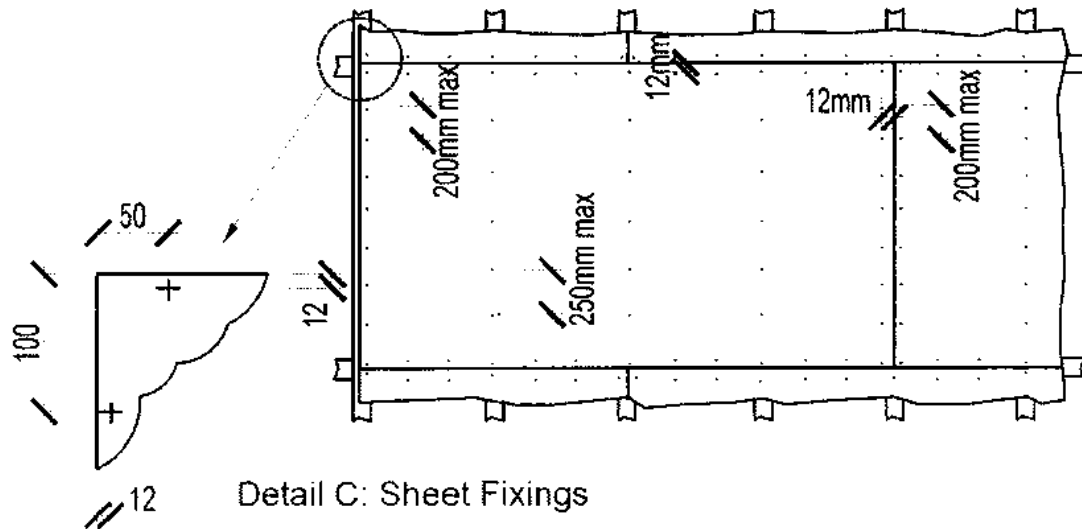
- ❑ Cut **eterpan Refined** or **european** . Pre-drill holes.
- ❑ Screw the sheets using SS screws and 10G cup washers. When installing Pictura, use a protective fixing tool on the drilling machine (see picture).



Section through exposed fixing

Step 4: Fix Sheets – option 2: featured fixings

- ❑ Ensure minimum edge clearance of 12 mm for **eterpan Refined** and 25 mm for or **european** sheets.
- ❑ Contact adhesive can be used to intermediate nogs instead of screws.



Step 4: Fix sheets – option 3: Concealed fixing with glue

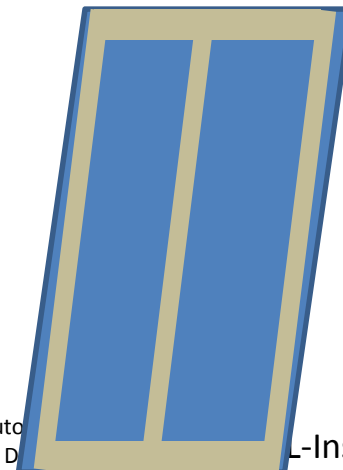
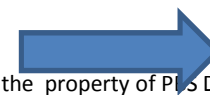
CONDITIONS

- Glue can be used to bond PBS fibre cement sheets onto timber or steel framing. Bonding surfaces must be primed and adhesives applied under dry conditions, with no rain or condensation on sheets or rails.
- Air temperature should not be lower than +5 degrees C or greater than 30 degrees C, humidity must not exceed 90%
- Wipe the timber framing to be glued with **SIMSON Primer P** (P for porous materials)
- Apply with a clean dry cloth or tissue paper.
- Allow to dry for at least 10 minutes but no longer than 6 hours
- Divide cladding into sections to allow sufficient drying time for primers & not to leave tapes or adhesives exposed for too long.

Step 4: Fix sheets – option 3: Concealed fixing with glue

- Cut & dry fit the fibre cement sheet.
- Detail cut edges and dust off.
- Apply **Simson MSP Primer** 50mm around sheet perimeter and to stud lines where glue will make contact.
- Apply with brush or roller.
- Simson MSP Primer** must dry for at least 60 minutes but no longer than 6 hours or recoating is necessary.

NOTE: with **NATURA, NATURA PRO, PICTURA, TEXTURA & ETER-COLOR** sand the glue lines on the sheet back aggressively with 80g dry sandpaper before priming.



Step 4: Fix sheets – option 3: Concealed fixing with glue

- Double sided adhesive HDPE **foam tape** 3mm x 8 mm
- Apply vertically & horizontal without interruption. Cut with a sharp knife.
- Do not remove the protection foil from the tape at this point.

NOTE: the tape has three functions:

- To hold the sheet up whilst the glue cures (retain sheer weight on packers)
- To stop glue oozing into the expressed joint
- To maintain 3.0mm integrity to glue line (tape must be applied to the timber to the center of the sheet to stop glue being depressed)

Step 5: Structural Adhesive Fix – fit the sheets

- NOTE:** It is essential to fit the panels within 10 minutes of applying the **Paneltack HM** to prevent skin formation on the adhesive.
- Remove the protective covering off the double sided tape.
- Support the sheer weight of the sheet with shim or block.
- Position base of the sheet to glue line.
- In a hinging motion lean sheet onto the 9.0mm triangular bead of glue.
- Check sheet position before applying pressure to the panel to ensure bonding to the adhesive tape.
- Brace if necessary to achieve a flat and uniform surface or use temporary screw fixing until the **Paneltack HM** adhesive has cured.
- Use PVC 10mm spacers to achieve a consistent negative detail