WHANGANUI
DISTRICT COUNCIL
Te Kaunihera a Rohe o Whanganui

IMPORTANT NOTE

These documents are required to be onsite for all inspections and must be a complete and full copy of the WDC stamped “Approved” documents.

Failure to have a full and legible set of documents may result in a terminated inspection. A terminated inspection will incur additional charges.

101 Guyton Street
P O Box 637, Whanganui
Phone: (06) 349 0001
Fax: (06) 349 0000
Email: wdc@whanganui.govt.nz
Web: www.whanganui.govt.nz

WHANGANUI DISTRICT COUNCIL
Te Kaunihera a Rohe o Whanganui

INSPECTION RECORD

This record, together with the Building Consent and approved plans, is to remain on the construction site at all times.

Project Location	***TO BOOK AN INSPECTION PLEASE PHONE WDC BUILDING CONTROL ON 349 0001 AND QUOTE THE FOLLOWING APPLICATION NUMBER:***	***BCon24/0189***
60A Duncan St WHANGANUI		
Description of Work	**New level entry shower and toilet in bathroom**	

Applicant	River City Architectural Ltd 51 Kings Avenue, Gonville, Whanganui 4501
Builder	Mrs WP Revill 34 Broughton Street, Whanganui East, Whanganui 4500

SUMMARY OF CONDITIONS

Building Consent Number BCon24/0189

PIM Conditions

Code	***Condition***
	All work on the project must comply with the requirements of the NZ Building Code.
	A PIM only document is not an approval to build. A Building Consent is required before building work commences.
	W.D.C will follow up on building work not completed within two years of building consent issue.
	A Building Consent lapses and is of no effect if the building work has not been started within 12 months of the date of issue.
	If the building is public premises it may not be occupied until either a code compliance certificate or certificate for public use has been issued.
	Please note [Electrical, and Gasfitting subtrades do not form part of the building consent inspection process. However, Council is required to receive 'Energy Certificates' from both of these trades before issue of a Code Compliance Certificate].

Building Consent Information

Code	***Information***

Your project's inspections are listed on the next page...

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Please Note: A minimum of 48 hours notice is required for the booking of an inspection. The inspection record sheet and accompanying building consent documentation must be on site for use by the inspector at the time of the inspection.

All inspections are to be carried out by BCA Building Inspectors unless prior arrangements have been made by the BCA to have an approved qualified person inspect specific items (eg. Engineer). Inspections shall be carried out in accordance with the attached schedule of inspection types. It is the owner's responsibility to ensure all necessary inspections are carried out as required. Please contact WDC if you are unsure what requires inspection – do not cover or enclose any building work without inspection.

Note: Further inspections may incur additional cost at time of Code Compliance Certificate issue.

Inspections Record For Building Consent Number BCon24/0189

Inspection	*When to Request*	*Date*	*Inspector*	*Complies with Code*	*Reinspect*	*Notes*		
BUILDING AND PLUMBING PRELINE COMBINED INSPECTION	Before Internal linings are fixed.							
SANITARY DRAINS INSPECTION	Before backfilling drains							
FINAL BUILDING AND PLUMBING COMBINED INSPECTION	On Completion					Once the final inspection has been completed please apply for your Code Compliance Certificate and supply the following information: (Please note that the Code Compliance Certificate can be applied for online at www.whanganui.govt.nz) • As-Built Drainage plan. • Energy certificate/s.		

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WHANGANUI DISTRICT COUNCIL
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BUILDING CONSENT NUMBER BCon24/0189

Section 51, Building Act 2004

The building:

Street address of building:	***Legal description of land where building is located:***
60A Duncan St WHANGANUI	Lot 2 DP 461098 0.0349 Ha
Building name:	***Location of building within site/block number:***
Level/unit number:	
1.000000	

The owner:

Name of Owner:	
Mr EW Duggan, Mr EC Duggan	
Mailing address:	***Street Address/registered Office:***
60A Duncan Street Whanganui East Whanganui 4500	60A Duncan Street Whanganui East Whanganui 4500

Phone numbers:

Landline:	063436160	***Mobile:***	
Daytime:		***After hours:***	
Facsimile number:			
Email address:		***Website:***	

First point of contact for communications with the building consent authority:

Contact Person:	
River City Architectural Ltd	
Mailing address:	***Street Address/registered Office:***
51 Kings Avenue, Gonville, Whanganui 4501	51 Kings Avenue, Gonville, Whanganui 4501

Phone number:

Landline:		***Mobile:***	021397061
Daytime:		***After hours:***	
Facsimile number:			
Email address:		***Website:***	

Building Work

The following building work is authorised by this consent

Project
New level entry shower and toilet in bathroom

101 Guyton Street
P O Box 637, Whanganui
Phone: (06) 349 0001
Fax: (06) 349 0000
Email: wdc@whanganui.govt.nz
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WHANGANUI DISTRICT COUNCIL
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Intended Use	***Intended Life***
Single Detached Residential	50+ Years
Estimated Value ($)	
$30000.00	

This building consent is issued under section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty of responsibility under any other Act relating to or affecting the building (or proposed building). This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition or removal would be in breach of any other Act.

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CONDITIONS OF BUILDING CONSENT NUMBER BCon24/0189

Section 51, Building Act 2004

This Building Consent is issued Subject to the following conditions:

Building Act 2004, Section 90:

Inspections by Building Consent Authorities

Agents authorised by the building consent authority for the purposes of this section are entitled, at all times during normal working hours or while building work is being done, to inspect

(a) land on which building work is being or is proposed to be carried out; and

(b) building work that has been or is being carried out on or off the building site; and

(c) any building.

Compliance Schedule:

A compliance schedule (CS) is not required for this building.

‡Attachments

‡Copies of the following documents are attached to this building consent:
‡Project information memorandum number BCon24/0189
‡Inspection record
‡Informative notes

Signed for and on behalf of the Whanganui District Council

GJ Hoobin
Building Control Manager

Date: 10 May 2024

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WHANGANUI DISTRICT COUNCIL
Te Kaunihera a Rohe o Whanganui

BUILDING CONSENT NUMBER BCon24/0189

Informative notes:

- The Building Consent, conditions, inspection sheet, and approved plans must be kept on site at all times until completion of the project.
- Failure to request inspections will risk the non-issuing of a code compliance certificate and the structure may be deemed non-complying.
- Any inspection time required over and above that allowed may incur a further charge.
- Under Section 52, a building consent lapses and is of no effect if the building work to which it relates is not commenced within 12 months after the date of issue.
- Under Section 93, if the owner has not made application within 24 months, the BCA (Building Control Authority), must decide whether or not to issue a CCC (Code Compliance Certificate).

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PROJECT INFORMATION MEMORANDUM NUMBER BCon24/0189

Section 35, Building Act 2004

River City Architectural Ltd
51 Kings Avenue
Gonville
Whanganui 4501

Project Location	***Assessment Number/Legal Description***
60A Duncan St WHANGANUI	Lot 2 DP 461098 0.0349 Ha
Category	***Description of Work***
General Building Consents	New level entry shower and toilet in bathroom
Intended Life	***Estimated Value ($)***
50+ Years	30000.00

This Project Information Memorandum is confirmation that the proposed work may be undertaken, subject to the provisions of the Building Act 2004 and any requirements of the Building Consent (number BCon24/0189), which has been granted.

This Project Information Memorandum is subject to the following conditions:

- **All work on the project must comply with the requirements of the NZ Building Code.**

Signed for and on behalf of the Whanganui District Council

GJ Hoobin
Building Control Manager **Date**: 10 May 2024

Authorisation Letter to The Whanganui District Council

Dear Sir/Madam,

I hereby authorise Ben Nyssen, to act on my behalf in all manners relating to my building consent application.

Kind Regards,

Name Edward Duggan Email nzericaduggan@gmail.com

Address 60A Duncan Street Whanganui East Contact number 0223938791

Signature _____ Date 25/04/2024

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**605977**
Land Registration District	**Wellington**
Date Issued	07 May 2013

Prior References
WN313/20

Estate	Fee Simple
Area	349 square metres more or less
Legal Description	Lot 2 Deposited Plan 461098

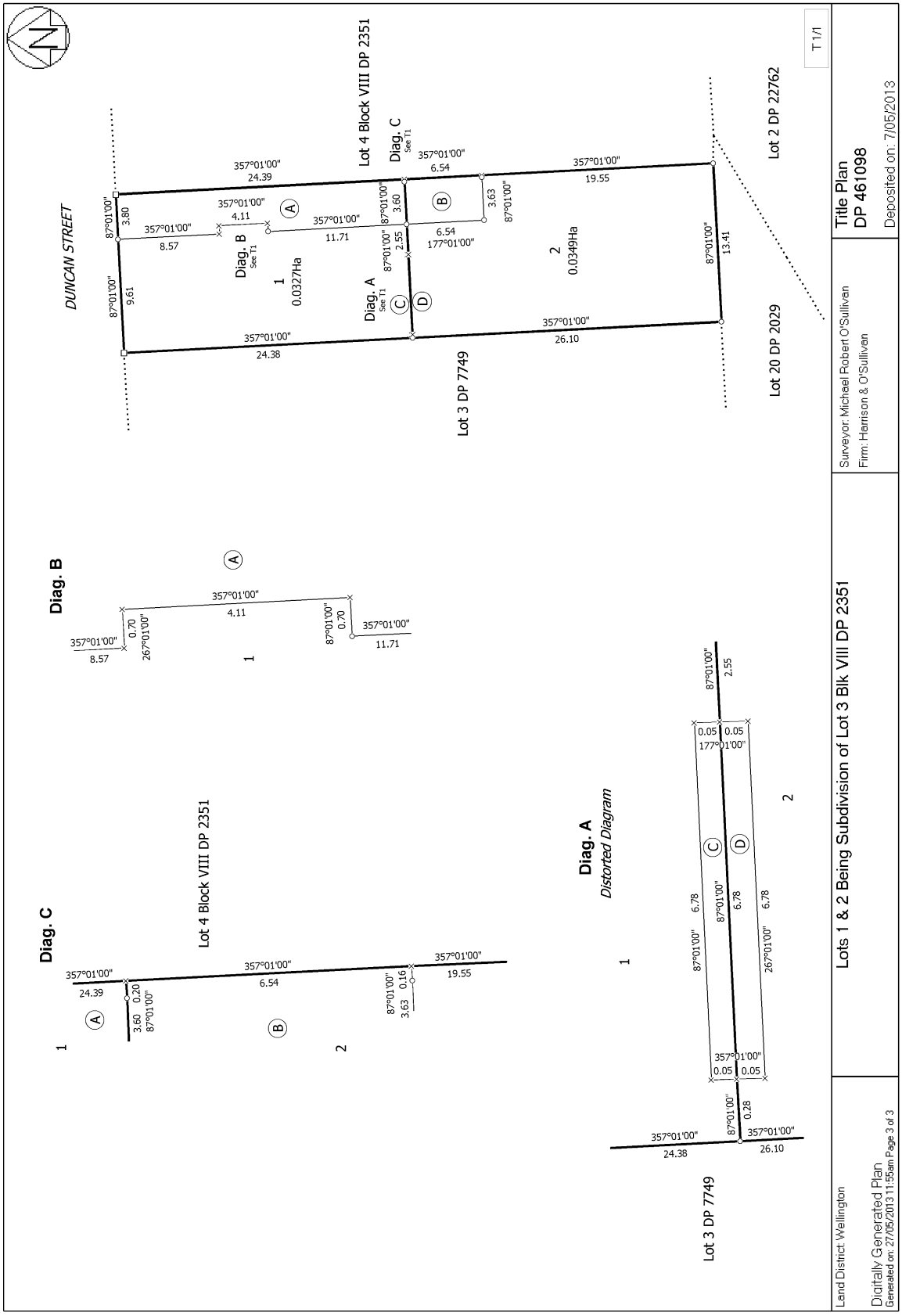
Registered Owners
Edward William Duggan, Edward Charles Duggan and Wendy Paulette Revill

Interests

Subject to a right of way over part marked B and a party wall easement over part marked D both on DP 461098 created by Easement Instrument 9340692.2 - 7.5.2013 at 11:08 am

Appurtenant hereto is a right of way, stormwater and sewage drainage, water, electrcity and gas supply and telecommunications easement and a party wall easement created by Easement Instrument 9340692.2 - 7.5.2013 at 11:08 am

The easements created by Easement Instrument 9340692.2 are subject to Section 243 (a) Resource Management Act 1991



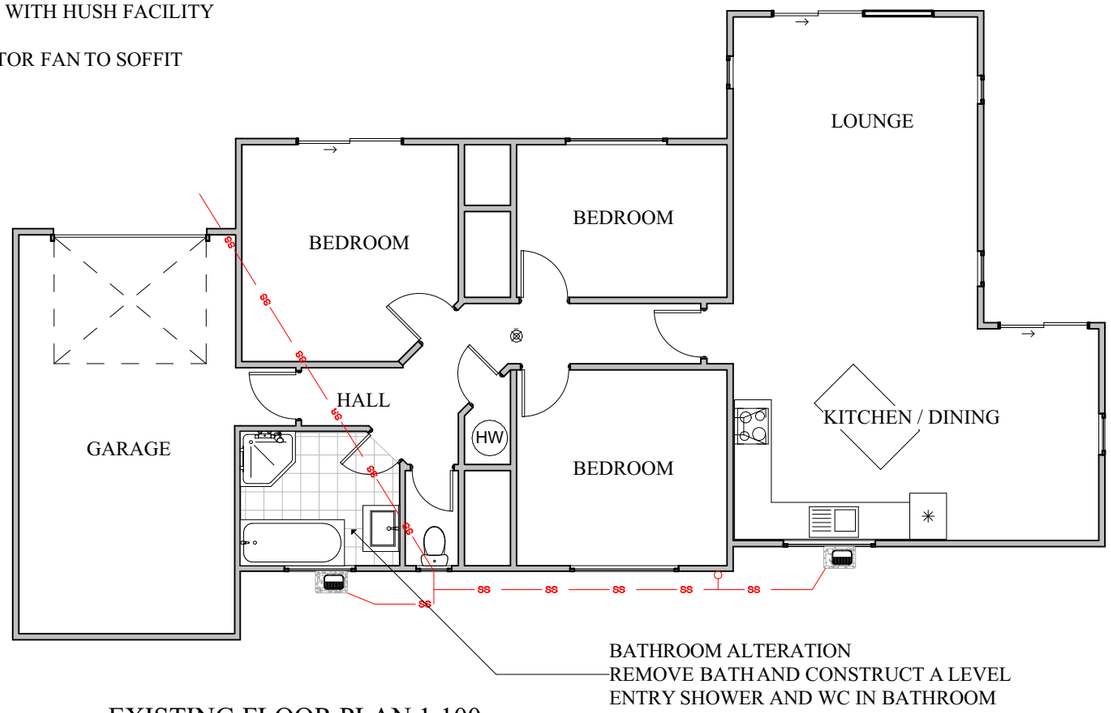
L01 - EXISTING / PROPOSED
L02 - FLOORING / PLUMBING
L03 - INTERIOR ELEVATIONS
SPECIFICATION

60a DUNCAN STREET

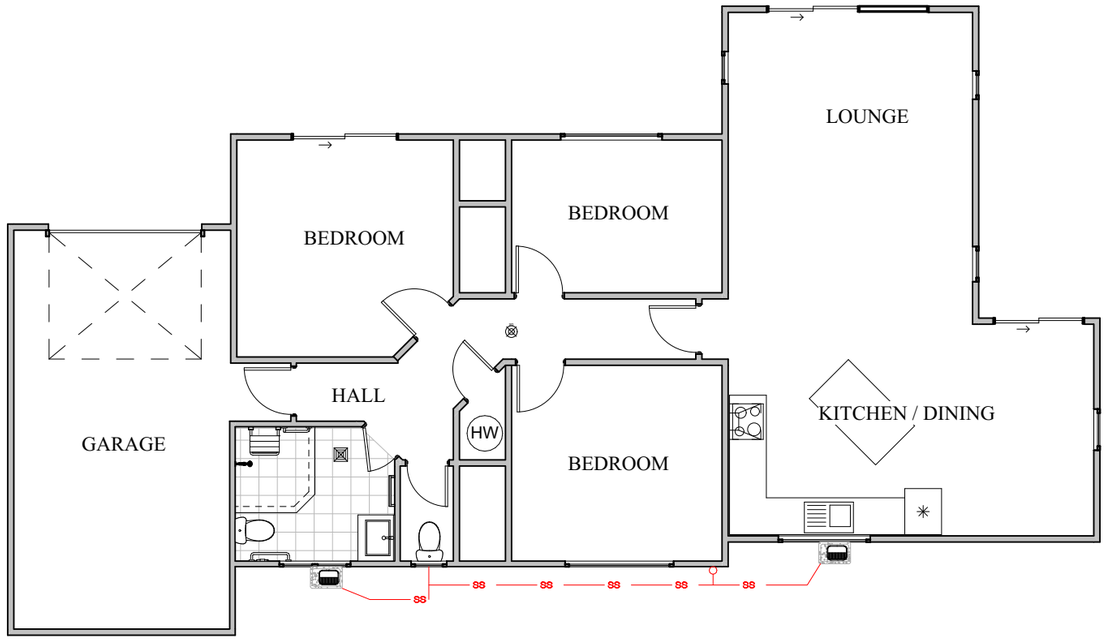
INSTALL A LEVEL ENTRY SHOWER AND TOILET IN THE BATHROOM

⊗ - SMOKE ALARM WITH HUSH FACILITY

▣ - 25 ltr/s EXTRACTOR FAN TO SOFFIT



EXISTING FLOOR PLAN 1:100



PROPOSED FLOOR PLAN 1:100

SITE SAFETY

Comply with the Health and Safety at Work Act 2015 (HSWA) Health and Safety at Work (Asbestos) Regulations 2016 and with all relevant WorkSafe New Zealand Approved Codes of Practice and WorkSafe Information and Guidance, particularly those for construction and building maintenance. Comply with the relevant provisions of the New Zealand Building Code, in particular Clause F5.Notify WorkSafe as soon as possible when a notifiable event occurs. Take all reasonable steps to preserve the site of the notifiable event in accordance with WorkSafe requirements. Ensure that the site of the event is not disturbed until authorised otherwise by WorkSafe. Keep records of all notifiable events.No rubbish fires are allowed on site. No smoking on site, except in the designated location in accordance with the Smoke Free Environments Act 1990, the location of which will be determined by the Contractor, with the approval of the Principal.

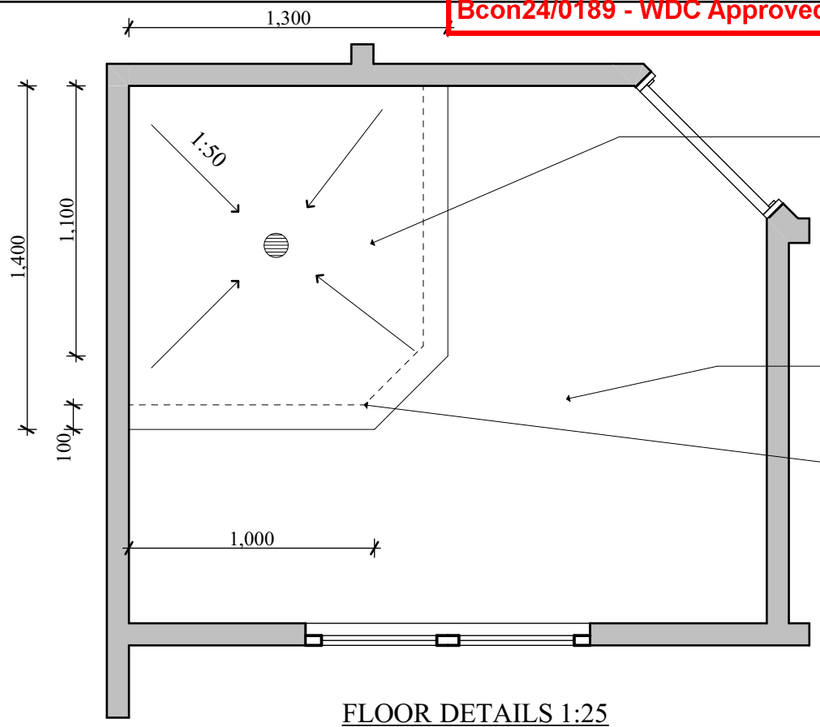
SMOKE ALARMS

Type 1 - Domestic Smoke shall provide a hush facility, being a button that silences the alarm for a minimum duration of 60 seconds. Smoke alarms shall be located as follows: Within 3.0 m of every sleeping space door. In this case, the smoke alarms must be audible to sleeping occupants on the other side of the closed doors.

RIVER CITY ARCHITECTURAL
Mobile - Ben 021 397 061
Email - nyssenben@gmail.com
http://river-city-architectural.business.site/

LICENSED BUILDING PRACTITIONER BUILDING CONFIDENCE

WIND ZONE MEDIUM	JOB TITLE	ADDRESS	DRAWING TITLE	SCALE 1:100		SHEET
EQ ZONE 2 / EXPOSURE ZONE C	INSTALL A LEVEL ENTRY SHOWER AND TOILET IN THE BATHROOM	60a DUNCAN STREET	EXISTING / PROPOSED FLOOR PLAN	DATE 22/4/24	JOB NO	L01
Lot 2 DP 461098				REVISION	PAGE	

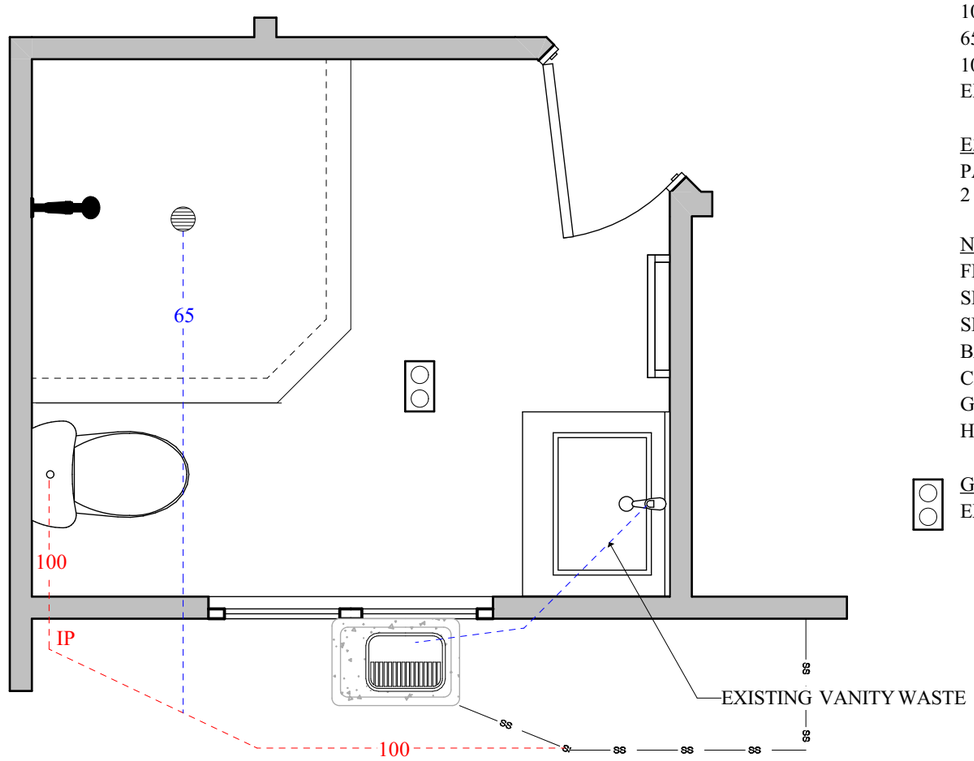


FLOOR DETAILS 1:25

100mm CONCRETE FLOOR WITH 1:50 FALL TO WASTE. 17.5 MPA CONCRETE OVER 665 MESH ON .25mm POLYTHENE. CHEMSET D10 STARTERS 100mm INTO EXISTING SLAB.

TARKETT VINYL TO FLOOR

DOTTED LINE SHOWING POSITION OF SHOWER CURTAIN



PLUMBING 1:25

G12 AS/1
WATER SUPPLY BY WDC RETICULATED SYSTEM.
HOT WATER BY ELECTRIC CYLINDER, FACTORY SET TO 55 DEGREES.

AS/NZS 3500.2
MARLEY OPTIM DWV
100MM NEW DRAIN @ 1:60 INTO EXISTING DRAIN.
65mm SHOWER DRAIN @ 1:40 INTO NEW 100mm DRAIN @ 1:60.
100mm UPVC DRAIN @ 1:60mm MINIMUM GRADIENT.
EXISTING 80mm TERMINAL VENT.

E3/AS1
PAINT COATINGS WET AREA CEILING.
2 COATS OF RESENE SPACECOAT LOW SHEEN KITCHEN / BATHROOM.

NOTES
FLOOR - TARKETT NON-SLIP VINYL COVED 150mm UP WALL.
SHOWER FLOOR - 1:50 FALL TO DRAIN.
SHOWER WALLS - HARDIGLAZE WALL LININGS.
BATHROOM WALLS - HARDIGLAZE WALL LININGS.
CEILING - PAINT EXISTING PLASTERBOARD.
GLAZING - EXISTING GRADE A SAFETY GLASS TO WINDOW.
HOT WATER BY ELECTRIC CYLINDER WITH TEMPERING VALVE TO 55 DEGREES

G4/AS1
EXTRACTOR FAN DUCTED TO SOFFIT. 25ltr/SEC MINIMUM FLOW RATE

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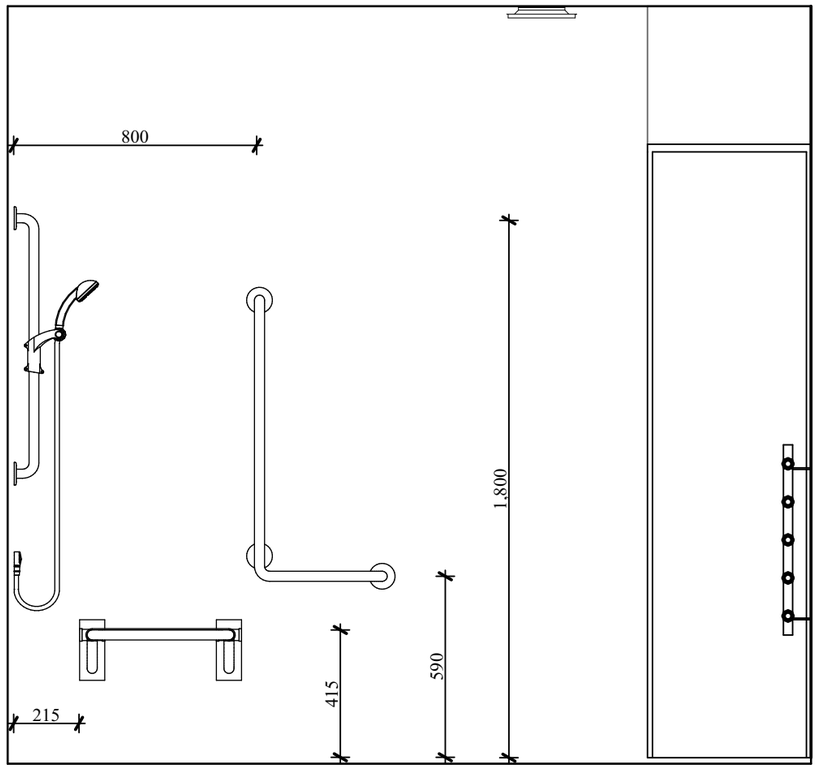
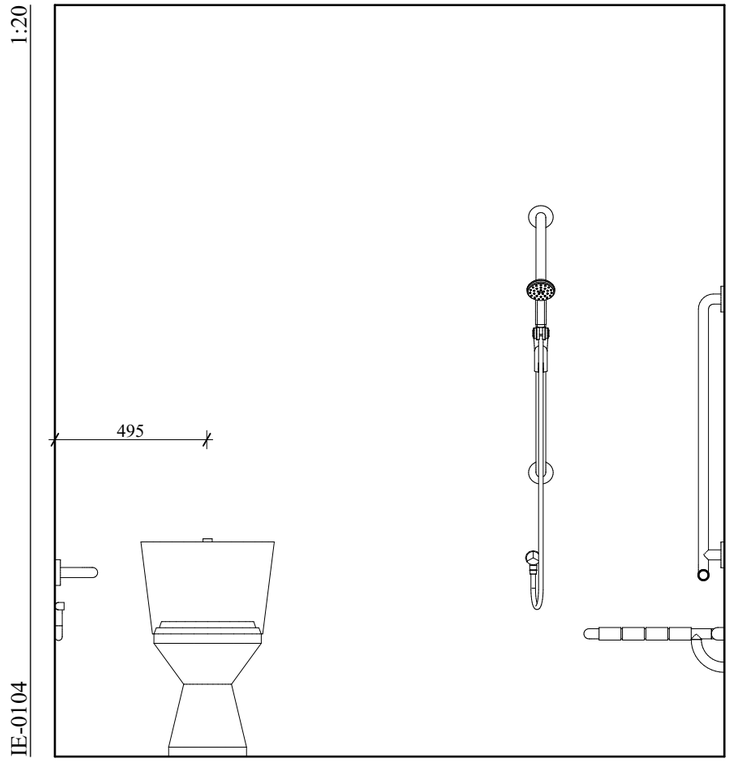
WIND ZONE MEDIUM; EQ ZONE 2; EXPOSURE ZONE C; Lot 2 DP 461098	JOB TITLE: INSTALL A LEVEL ENTRY SHOWER AND TOILET IN THE BATHROOM	ADDRESS: 60a DUNCAN STREET	DRAWING TITLE: PROPOSED BATHROOM	SCALE 1:25; DATE 22/4/24; JOB NO; REVISION; PAGE	SHEET L02

1:20



IE-0101

1:20



IE-0104

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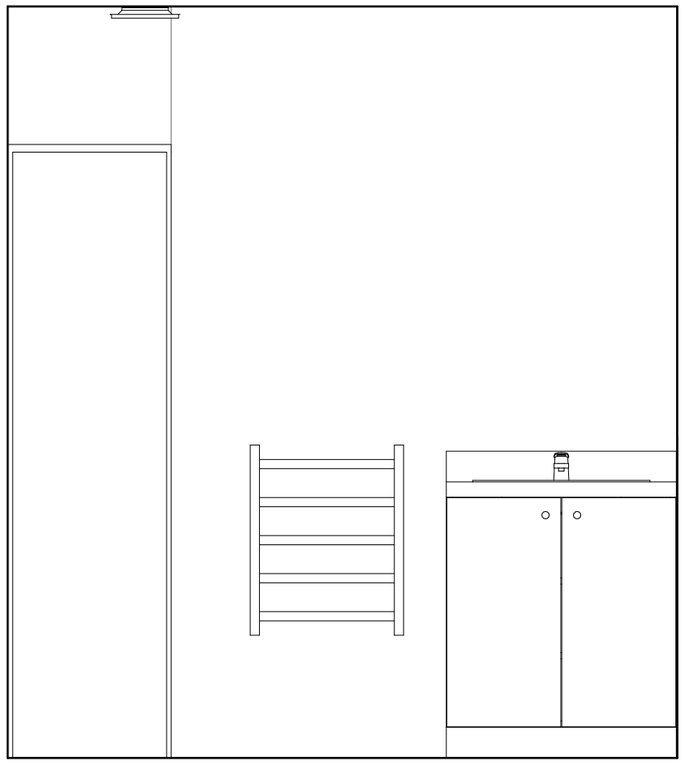

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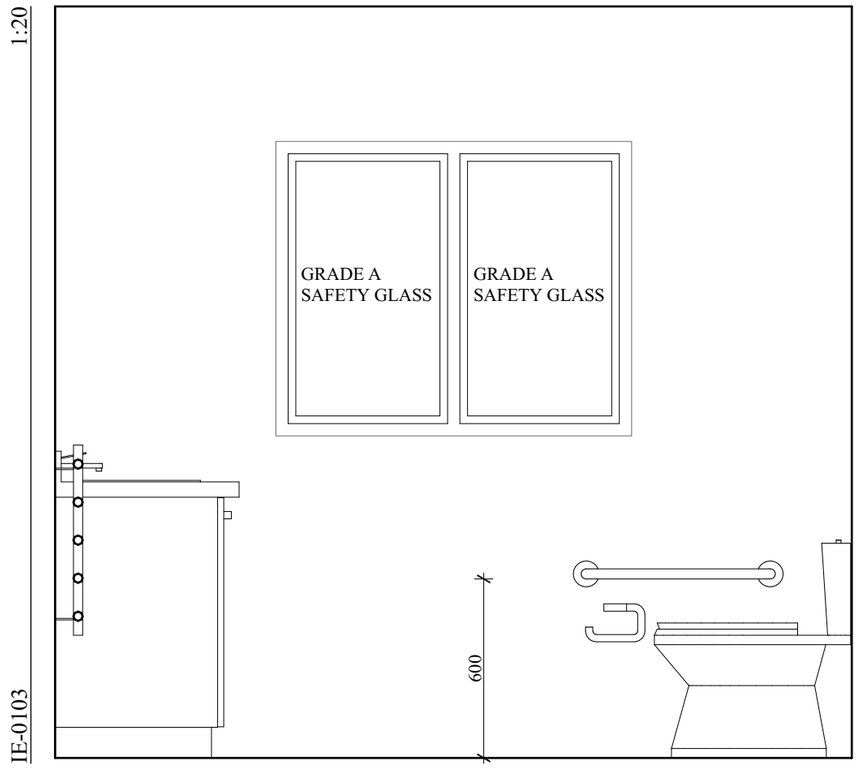

IE-0103

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LICENSED BUILDING PRACTITIONER BUILDING CONFIDENCE

WIND ZONE MEDIUM	JOB TITLE	ADDRESS	DRAWING TITLE	SCALE 1:20		SHEET
EQ ZONE 2 / EXPOSURE ZONE C	INSTALL A LEVEL ENTRY SHOWER AND TOILET IN THE BATHROOM	60a DUNCAN STREET	INTERIOR ELEVATIONS	DATE 22/4/24	JOB NO	L03
Lot 2 DP 461098				REVISION	PAGE	

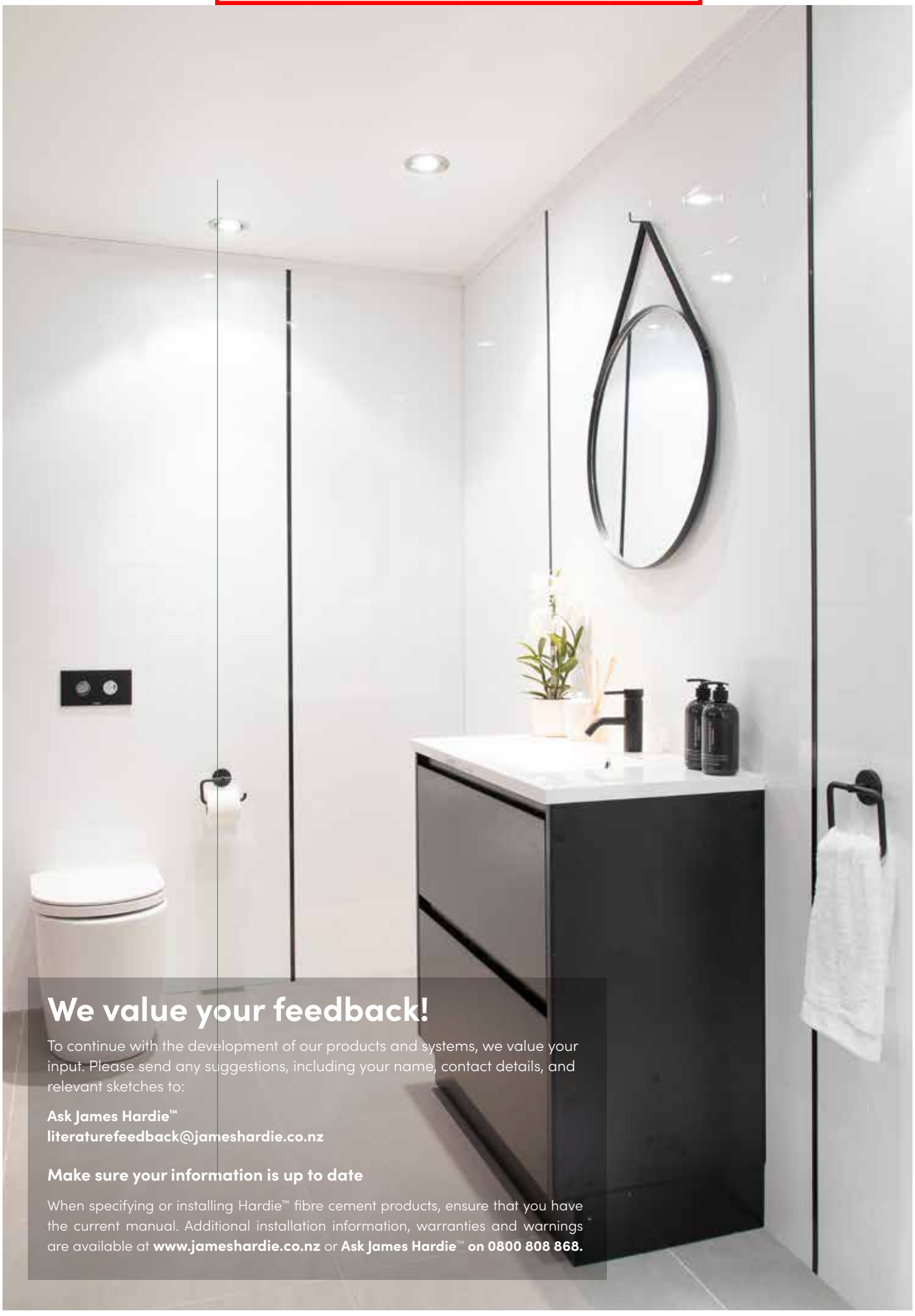
JamesHardie™

jameshardie.co.nz

Hardie™ Glaze Lining

Installation Manual

July 2021 New Zealand



We value your feedback!

To continue with the development of our products and systems, we value your input. Please send any suggestions, including your name, contact details, and relevant sketches to:

Ask James Hardie™
literaturefeedback@jameshardie.co.nz

Make sure your information is up to date

When specifying or installing Hardie™ fibre cement products, ensure that you have the current manual. Additional installation information, warranties and warnings are available at **www.jameshardie.co.nz** or **Ask James Hardie™ on 0800 808 868.**

Contents

1 Product Overview

1.1 Product Information

Hardie™ Glaze Lining is a internal pre-finished wall and ceiling lining made from Hardie™ fibre cement and is suitable for use in wet or dry areas that require a sealed, impervious surface. It is an easy clean, antimicrobial protection, high gloss UV cured coated finish that's suitable for residential or commercial applications with no backing substrate required. Hardie™ Glaze Lining is resistant to fire and damage from moisture, rotting and cracking, when installed and maintained in accordance to the information published in this manual.

For advice on Hardie™ Glaze Lining, Ask James Hardie™ on 0800 808 868.

Table 1

Hardie™ Glaze Lining information					
Product	**Description**	**Quantity / size**			
	**Hardie™ Glaze Lining 4.5mm** High-gloss UV cured finish. Is back sealed. Available in white. Square sheet edge Mass at equilibrium moisture content is 7kg/m²	**Thickness: 4.5mm**			
		Length (mm)	**Width (mm)**	**Colour**	**Code**
		2400	1200	White	**400221**
		2400	900	White	**400225**
	**Hardie™ Glaze Lining Tile** Square-tile pattern embossed into a hard-wearing, high gloss UV cured coating. Is back sealed. Available in white. Mass at equilibrium moisture content is 9.5kg/m²	**Thickness: 6mm**			
		Length (mm)	**Width (mm)**	**Colour**	**Code**
		2400	1200	White	**400240**
	**Hardie™ Glaze Lining 6mm** High-gloss UV cured finish, back sealed, designed for residential, commercial and industrial wet and dry areas, ideal for food processing areas where strict hygiene conditions apply. Available in white. Radius sheet edge Mass at equilibrium moisture content is 9.5kg/m²	**Thickness: 6mm**			
		Length (mm)	**Width (mm)**	**Colour**	**Code**
		2700	1200	White	**400210**
		2400	1200	White	**400211**

Note:

1. Hardie™ Glaze Lining must have primer applied where indicated in this manual.
2. All dimensions and masses provided are approximate only and subject to manufacturing tolerances.
3. Hardie™ Glaze Lining sheets vary in moisture content with the seasons.
4. Where possible sheet edges with greater coverage (typically one end) are best orientated so that they are the lowest edge.

1.2 Components and Accessories

Table 2

uPVC jointers and mouldings for Hardie™ Glaze Lining 4.5mm only				
Accessories	**Description**	**Length (mm)**	**Material/appearance**	**Code**
	Sheet Jointer	2400	uPVC Gloss White	**300690**
	Cap Mould	2400	uPVC Gloss White	**300678**
	External Corner Mould	2400	uPVC Gloss White	**300682**
	Internal Corner Mould	2400	uPVC Gloss White	**300686**
	Bath Mould 4.5mm	2500	uPVC Gloss White	**300674**

Table 3

Aluminium jointers and mouldings for Hardie™ Glaze Lining 4.5mm only				
Accessories	**Description**	**Length (mm)**	**Material/appearance**	**Code**
	Sheet Jointer	2700	Aluminium Naturally Anodised	**304507**
	Cap Mould	2700	Aluminium Naturally Anodised	**304501**
	External Corner Mould	2700	Aluminium Naturally Anodised	**304503**
	Internal Corner Mould	2700	Aluminium Naturally Anodised	**304505**

Table 4

uPVC jointers and mouldings for Hardie™ Glaze Lining 6mm only				
Accessories	**Description**	**Length (mm)**	**Material/appearance**	**Code**
	Sheet jointer	2700	uPVC Gloss White	**300713**
	Cap mould	2700	uPVC Gloss White	**300695**
	Internal corner mould	2700	uPVC Gloss White	**300707**
	External corner mould	2700	uPVC Gloss White	**300701**
	Bath mould 6mm	2500	uPVC Gloss White	**300691**
	Flexible-edge 2-piece internal uPVC corner mould	2700	uPVC Gloss White	**300946**

Table 5

Aluminium jointers and mouldings for Hardie™ Glaze Lining 6mm only				
Accessories	**Description**	**Length (mm)**	**Material/appearance**	**Code**
	Sheet jointer	2700	Aluminium naturally anodised	**304506**
	Cap mould	2700	Aluminium naturally anodised	**304500**
	Internal corner	2700	Aluminium naturally anodised	**304504**
	External corner	2700	Aluminium naturally anodised	**304502**
	Sheet jointer	2700	Aluminium White	**305750**
	Cap mould	2700	Aluminium White	**305751**
	Internal Corner	2700	Aluminium White	**305749**
	External Corner	2700	Aluminium White	**305748**
	Negative jointer	2700	Aluminium naturally anodised	**305752**

Table 6

Hardie™ Glaze Lining accessories for the full 4.5mm and 6mm range				
Accessories	**Description**	**Length (mm)**	**Material/appearance**	**Code**
	Fastfix fasteners	40 100 per pack	Nylon Gloss White	**300632**
	Scotia mould	2400	uPVC Gloss white 2-piece Base and Cap	**300916**

Table 7

Hardie™ Glaze Lining accessories				
Accessories	**Description**	**Size (mm)**	**Material/ appearance**	**Code**
	Hardie™ Blade Saw Blade	184mm		**300660**
	Hardie™ Two Sided Adhesive Tape To go on timber framing as optional fixing used in conjunction with adhesive fixing	12mm x 33m	Red Tape	**305433**
	Hardie™ Knife			**305926**

Table 8

Accessories not supplied by James Hardie			
The following products are for use in conjunction with Hardie™ Glaze Lining. James Hardie does not supply these products. Please contact component manufacturer for information on their warranties and further information on their products.			
Accessories	**Description**	**Unit**	**Quantity**
	Sealer Dulux® Acraprime® 501/1, Dulux® 1 Step or similar	Tin	
	Gator® Bond Breaker Tape Blue or 3M 500 tape To go behind sealant joint	Roll	55m
	Sika® SikaFlex® 11FC, Bostik® Seal n Flex-1, No more nails, Fuller™ Max Bond™ or similar	Cartridge	
	Masking Tape 3M Scotch™ Blue™ #2090 – 18E 70006576972 or Sellotape 5855 Long Life	Roll	55m
	Sealant Sika® Sikasil® NG (translucent) or Sika® Sikasil® RTV (+ SikaPrimer-3N), Sika® Sikasil® Wet Areas or Fullers™ 770 Sanitary	Cartridge	
	C-25 Brad Nail	Box	
	Fibre Shear Cutter from building/tools supplier		
	Pan head/hex head screw for exposed fixing		
	6mm drill bit to be used for fixing Fastfix Fasteners		

1.3 Manufacturing and Classification

James Hardie is an ISO 9001 Telarc certified manufacturer.

The base sheets are a light grey colour. All sheets have the face side fully sanded to give a smooth finish. Hardie™ Glaze Lining is manufactured using a basic composition of Portland cement, ground sand, cellulose fibre and water.

Hardie™ Glaze Lining has the name 6.0 Base Sheet or 4.5 Base Sheet printed across the back of all sheets at regular intervals. Additional identification is the name written on the sticker applied to back of lining.

Hardie™ Glaze Lining 4.5mm has a square edge finish to its sheet edges and Hardie™ Glaze Lining 6mm has a radius edge finish to its sheet edges.

Hardie™ Glaze Lining are manufactured to the Australian/New Zealand Standard AS/NZS 2908.2 'Cellulose-Cement Products' (ISO 8336 'Fibre-Cement Flat Sheet'). Hardie™ Glaze Lining is classified Type B, Category 3 in accordance with the AS/NZS 2908.2 "Cellulose-Cement Products".

For Safety Data Sheets (SDS) visit **www.jameshardie.co.nz** and view them in the technical literature section or Ask James Hardie **on 0800 808 868.**

Figure 1: Hardie™ Glaze Lining Tile pattern

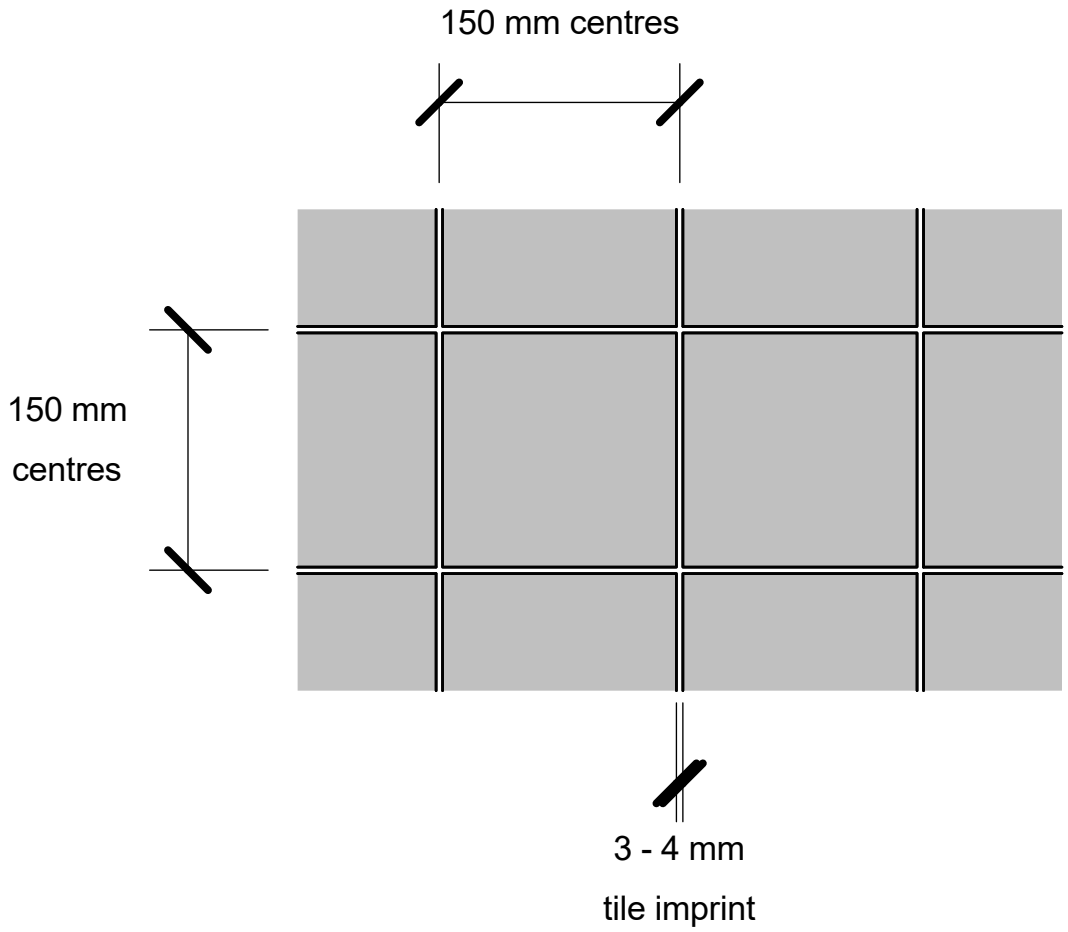
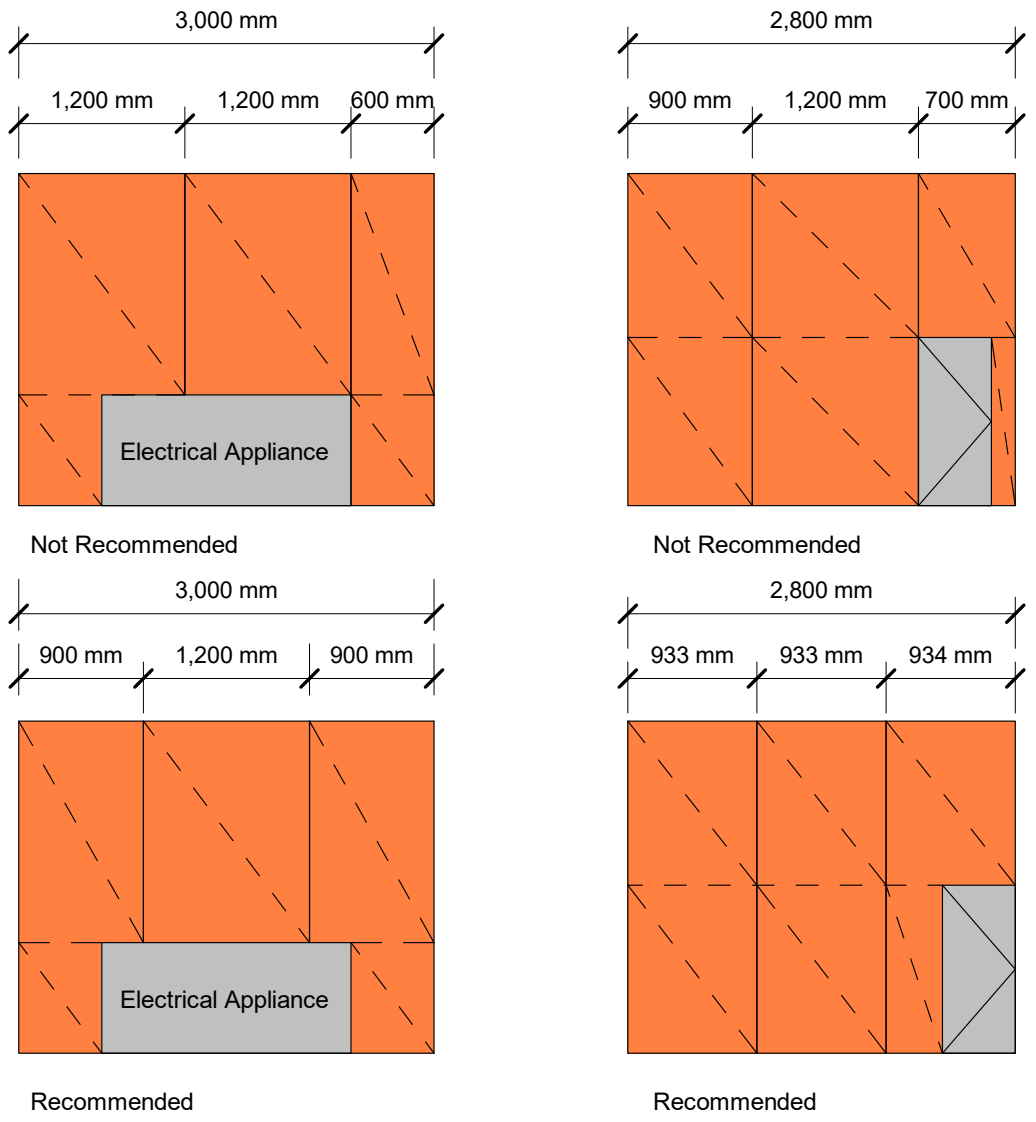


Figure 2: Hardie™ Glaze Lining layout



Notes: Where possible sheet edges with greater coating coverage (typically one end) are best orientated so that they are the lowest edge.

2 Application and Scope

2.1 Application

Hardie™ Glaze Lining can be fixed directly to timber or steel frames used for internal lining application.

2.2 Scope

This specification covers the installation of Hardie™ Glaze Lining for internal lining or ceiling fixed to framing that complies with the requirements of the NZBC.

2.3 Limitations

- Hardie™ Glaze Lining must not be used as an external cladding
- Hardie™ Glaze Lining must not be used in curved wall applications

2.4 Details

Various typical Hardie™ Glaze Lining details are provided within this document. The construction details are available on our website. These details are available in dwg, dxf, jpg and pdf file format and can be downloaded at www.jameshardie.co.nz.

All dimensions shown are in millimetres unless noted otherwise.

3 Compliance

3.1 NZBC Compliance

Hardie™ Glaze Linings comply with section 3.1.2 of E3/AS1. Information contained in this document regarding the installation of Hardie™ Glaze Linings are aligned with E3/AS1 of the NZBC.

Hardie™ Glaze Linings have an impervious coating and comply with E3/AS1 requirements.

4 Design

4.1 Responsibility

This document is intended for use by architects, designers, specifiers or builders who are involved in specifying Hardie™ Glaze Lining.

All New Zealand Standards referenced in this manual are current edition and must be complied with.

Specifier

If you are a specifier or other responsible party for a project ensure that the information in this document is appropriate for the application you are planning and that you undertake specific design and detailing for areas which fall outside the scope of these specifications.

For advice on designs outside the scope of this specification, Ask James Hardie on 0800 808 868.

Installer

If you are an installer ensure that you follow the design, moisture management principles, associated figures and material selection provided by the designer and this Installation Manual.

All the details provided in this document must be read in conjunction with the project specification.

James Hardie conducts stringent quality checks to ensure that any product manufactured falls within our quality spectrum. It is the responsibility of the builder to ensure that the product meets aesthetic requirements before installation. James Hardie will not be responsible for rectifying obvious aesthetic surface variations following installation.

4.2 Structure

4.2.1 Timber Framing

Timber framing must be in accordance with the NZS 3604 (Timber-framed buildings) or as per specific engineering design (SED) to the NZS 3603 and the AS/NZS 1170. Where specific engineering design is undertaken, the framing stiffness must be equivalent to or more than the framing provisions of the NZS 3604.

Refer to the NZS 3602 regarding timber treatment requirements and allowable moisture contents of timber.

4.2.1 Steel Framing

Hardie™ Glaze Lining can also be installed to steel frame. The steel framing must be in accordance with NASH Standard Part 2: 2019 'Light Steel Framed Buildings' and the stud/nog spacing as specified timber frame.

The framing must be firm and secured together and must not rely on Hardie™ Glaze Lining for stability. The minimum flange width of 38mm is required to adequately adhere the sheets.

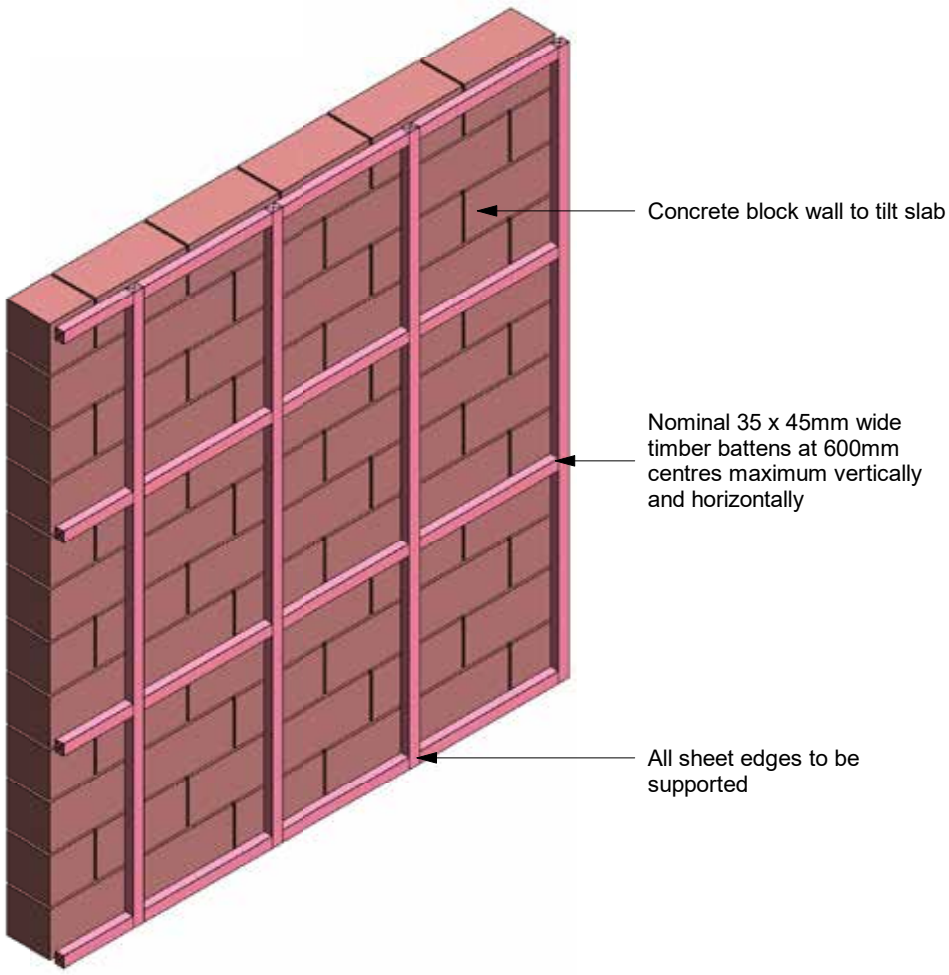
4.2.1 Batten Requirements

Timber/steel battens are required where the linings sheets are fixed over:

- polystyrene or similar substrates
- concrete, masonry block or brick walls

Allow concrete or block walls to dry out before battening and ensure that all exterior wall faces are adequately sealed. Take care to ensure the battens are packed to be in plumb line and have a flat even surface to adhere the lining sheets. Refer to batten layout figure.

Figure 3: Hardie™ Glaze Lining over masonry wall



4.3.2 Durability

Although Hardie™ Glaze Lining is resistant to moisture, the product specification must be designed, installed and maintained to resist the penetration of moisture. Hardie™ Glaze Lining installed as per this installation manual complies with the 15 year durability requirement of the NZBC.

Hardie™ Glaze Lining has demonstrated resistance to permanent moisture induced deterioration (rotting) by passing the following tests in accordance with AS/NZS 2908.2:

The Hardie™ Glaze Lining are:

- Heat rain (Clause 6.5)
- Water permeability (Clause 8.2.2)
- Warm water (Clause 8.2.4)
- Soak dry (Clause 8.2.5)

4.3 Food Preparation and Prevention of Contamination

The surface of Hardie™ Glaze Lining complies with the requirements of Clause G3 of the NZBC, when fixed to the hygiene area details provided in this installation manual.

4.4 Structural Bracing

Because Hardie™ Glaze Lining sheets are adhesive fixed, they are not suitable for structural sheet bracing. When structural sheet bracing is required, mechanically fix a sheet of Villaboard™ Lining to give the bracing rating required, then adhesive fix the Hardie™ Glaze Lining onto the face of the Villaboard™ Lining. Refer to the Bracing Design Manual by James Hardie for further bracing information.

4.6 Group Number Classification

Internal wall linings are required to be tested to establish their 'Group Numbers' in accordance with ISO 5660 or ISO 9705 as per 'Protection from Fire' Clause C of the NZBC. Hardie™ Glaze Lining have been tested and have **'Group Number 1-S'** classification. This is the best performance that can be expected of a prefinished wall lining.

Because the sheets are adhesive fixed they are not suitable for fire rated wall applications. Villaboard™ Lining must be used for fire rated system with Hardie™ Glaze Lining adhered to it.

Refer to the James Hardie Fire and Acoustic Design Manual for further information.

5 Safe Working Practices

WARNING - DO NOT BREATHE DUST AND CUT ONLY IN WELL VENTILATED AREA

Hardie™ fibre cement products contain sand, a source of respirable crystalline silica

May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product.

Intact fibre cement products are not expected to result in any adverse toxic effects. The hazard associated with fibre cement arises from the respirable crystalline silica present in dust generated by activities such as cutting, rebating, drilling, routing, sawing, crushing, or otherwise abrading fibre cement, and when cleaning up, disposing of or moving dust.

When doing any of these activities in a manner that generates dust, follow James Hardie's instructions and best practices to reduce or limit the release of dust.

If using a dust mask or respirator, use an AS/NZS 1716 P1 filter and refer to Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment for more extensive guidance and more options for selecting respirators for workplaces. For further information, refer to our installation instructions and Safety Data Sheets available at www.jameshardie.co.nz.

FAILURE TO ADHERE TO OUR WARNINGS, SAFETY DATA SHEETS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

Crystalline Silica is

- Commonly known as sand or quartz
- Found in many building products e.g. concrete, bricks, grout, wallboard, ceramic tiles, and all fibre cement materials

Why is Crystalline Silica a health hazard?

- Silica can be breathed deep into the lungs when present in the air as a very fine (respirable) dust
- Exposure to silica dust without taking the appropriate safety measures to minimise the amount being breathed in, can lead to a potentially fatal lung disease – silicosis – and has also been linked with other diseases including cancer. Some studies suggest that smoking may increase these risks
- The most hazardous dust is the dust you cannot see!

When is Crystalline Silica a health hazard?

- It's dangerous to health if safety protocols to control dust are not followed when cutting, drilling or rebating a product containing crystalline silica and when cleaning up
- Products containing silica are harmless if intact (e.g. an un-cut sheet of wall board)

Avoid breathing in crystalline silica dust

Safe working practices

- ✗ NEVER use a power saw indoors or in a poorly ventilated area
- ✗ NEVER dry sweep
- ✓ ALWAYS use M Class or higher vacuum or damp down dust before sweeping up
- ✗ NEVER use grinders
- ✓ ALWAYS use a dust reducing circular saw equipped with a sawblade specifically designed to minimise dust creation when cutting fibre cement – preferably a sawblade that carries the Hardie™ Blade name or one with at least equivalent performance – connected to an M Class or higher vacuum
- ✓ Before cutting warn others in the area to avoid dust
- ✓ ALWAYS follow tool manufacturers' safety recommendations
- ✓ ALWAYS expose only the minimum required depth of blade for the thickness of fibre cement to be cut
- ✓ ALWAYS wear a properly-fitted, approved dust mask or respirator P1 or higher in accordance with applicable government regulations and manufacturer instructions
- ✓ Consider rotating personnel across cutting tasks to further limit respirable silica exposures.

Use one of the following methods for cutting Hardie™ Glaze Lining:

Best

- Hardie™ Knife
- Fibreshear

Better

Dust reducing circular saw equipped with Hardie™ Blade Saw Blade and connected to a M Class or higher vacuum.

When cutting outdoors

- ✓ Make sure you work in a well-ventilated area
- ✓ Position cutting station so wind will blow dust away from yourself and others in the working area
- ✓ Cut products with either a Hardie™ Knife or fibre cement shears or, use a Hardie™ Blade Saw Blade (or equivalent) and a dust reducing circular saw connected to a M Class or higher vacuum
- ✓ When sawing, sanding, rebating, drilling or machining fibre cement products, always:
  - Wear your P1 or P2 mask (correctly fitted in accordance with manufacturers' instructions), ask others to do the same.
  - Keep persons on site at least 2 metres and as far as practicable away from the cutting station while the saw is in operation
  - If you are not clean shaven, then use a powered air respirator with a loose fitting head top
  - Wear safety glasses
  - Wear hearing protection
  - When others are close by, ask them to do the same
- ✓ Make sure you clean up BUT never dry sweep. Always hose down with water/wet wipe or use an M Class or higher vacuum

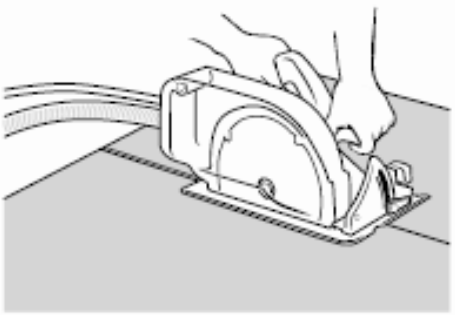
When cutting indoors

- ✕ Never cut using a circular saw indoors
- ✓ Position cutting station in a well-ventilated area
- ✓ Cut ONLY using a Hardie™ Knife or fibreshears.
- ✓ Make sure you clean up BUT never dry sweep. Always hose down with water/wet wipe or use an M Class or higher vacuum

Working Instructions

Hardie™ Blade Saw Blade

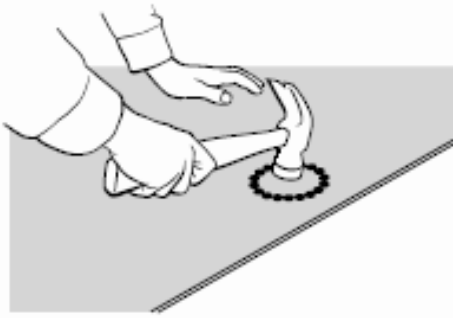
The Hardie™ Blade Saw Blade used with a dust-reducing saw is ideal for fast, clean cutting of Hardie™ fibre cement products. A dust-reducing saw uses a dust collector connected to a M Class or higher vacuum. When sawing, clamp a straight edge to the sheet as a guide and run the saw base plate along the straight edge when making the cut.



Hole-Forming

For smooth clean cut circular holes:

- Mark the centre of the hole on the sheet
- Pre-drill a 'pilot' hole
- Using the pilot hole as a guide, cut the hole to the appropriate diameter with a hole saw fitted to a heavy duty electric drill



For irregular holes:

- Small rectangular or circular holes can be cut by drilling a series of small holes around the perimeter of the hole then tapping out the waste piece from the sheet face
- Tap carefully to avoid damage to sheets, ensuring that the sheet edges are properly supported

5.1 Storage and delivery

Keeping products and people safe

Off loading

- ✓ Hardie™ fibre cement products should be off-loaded carefully by hand or by forklift
- ✓ Hardie™ fibre cement products should not be rolled or dumped off a truck during the delivery to the jobsite

Storage

Hardie™ fibre cement products should be stored:

- ✓ In their original packaging
- ✓ Under cover where possible or otherwise protected with a waterproof covering to keep products dry
- ✓ Off the ground – either on a pallet or adequately supported on timber or other spacers
- ✓ Flat so as to minimise bending

Hardie™ fibre cement products must not be stored:

- ✕ Directly on the ground
- ✕ In the open air exposed to the elements

James Hardie is not responsible for damage due to improper storage and handling.

5.2 Tips for safe and easy handling of Hardie™ Glaze Lining

- ✓ Carry with two people
- ✓ Hold near each end and carry the sheet on its edge
- ✓ Do not flex the sheets as this may damage the coating
- ✓ Exercise care when handling sheet products to avoid damaging the edges/corners

6 Installation

Step 1: Before you start

- Read the information in this manual. Note that Hardie™ Glaze Lining is NOT suitable for floors, benchtops, exterior cladding or exterior signage.
- Check that timber for framing is dry – the moisture content as per the NZS 3602.
- Check the sheet batch numbers to ensure the sheets are all from the same batch to be colour matched.
- Ensure the timber and sheet surface are free from any dirt or grime before installation.

Step 2: Assemble your tools

- Caulking gun
- Hand saw
- Hammer
- Electric drill and titanium bits
- Level
- Tape measure
- Saw horses
- Rasp
- Pencil
- Hardie™ Knife

Step 3: Check your materials

- Hardie™ Glaze Lining sheets 900mm or 1200mm wide.
- Construction adhesive sealant refer Table 8.
- uPVC or aluminium sheet jointers and mouldings (refer Tables 2-5).
- Silicone sealant refer Table 8 (refer Figure 26) and recommended masking tape.
- Polyurethane/polyethylene bondbreaker tape.
- Timber cut to length for temporarily bracing sheets into place.
- Batch numbers are identical.
- Arrow directions on tile.

Step 4: Choose the installation method

- Ascertain the correct Hardie™ Glaze Lining sheets to meet your specific requirements (refer to Table 1).
- Choose the appropriate fixing method (refer Table 9).
- Choose the appropriate edge sealing and jointing method.

Step 5: Prepare your walls

- Check framing for flatness and straightness. Plane back any timber high spots.
- Check that all framing is secure and well nailed.
- Punch all framing nails.
- Check that all plumbing and electrical fittings are fixed in the correct location.
- Accurately measure the distances between framing for sheet sizes. Measure at the top, bottom and centre of the frame as a check, and allow tolerances so the sheet will fit easily.

Step 6: Measure the sheets

- When cutting, accurately measure and mark out on the face of the sheet (use a soft builder's pencil). Allow 1 to 2mm clearance each side to fit into jointers.
- When using mouldings, accurately measure the mould to work out allowances for fitting into the moulding.
- Allow for sealant width when using silicone joints.

Step 7: Cut and form the sheets

- Accurately cut the sheets.
- Mark out positions of holes or penetrations in sheets.
- Hardie™ Glaze Lining sheets with cut edges must be site prepared and primed before applying sealant (refer page 24).
- Lining sheets to baths or bottom of showers must have bottom edge and back 100mm sealed (refer to Figures 38 - 44).
- For best results in shower applications always use the factory finished edge for the bottom drip edge.

Step 8: adhesive, sealant and install the sheets

- Refer to Section 7 for jointing options. Always ensure the timber or sheet surface are free from any dirt or grime before installation.

For uPVC/aluminium jointing:

- Fix the jointer to the studs first.
- Place sealant in jointers if required (refer Figure 28 - 39).
- Fit the sheet into jointer and press onto the adhesive daubs applied over timber frame and pack the sheet off the floor or base with 6mm minimum packers. Hold the sheet in place until temporary bracing is applied.
- When using Hardie™ two sided adhesive tapes in conjunction with adhesives, no temporary bracing is required.
- When fixing in a three sided shower, fix the first sheet onto the adhesive with the jointers on both sides of the sheet in place.
- Fix the second and subsequent sheets in place with the jointer to one edge as required.
- Ensure that all sheets are truly aligned and fit tightly into jointers, then temporarily brace into place.

For silicone jointing:

- Fix bond breaker tape to the framing behind the joints before fixing sheets (refer Figure 26).
- Press the sheets onto adhesive daubs/bead applied over timber frame and pack the sheet off the floor or base with 6mm minimum packers. Hold the sheet in place until temporary bracing is applied (refer Figure 6).
- Space the correct gap between sheet edges.
- Apply sealant between joints.
- Do not touch silicone sealant with bare fingers as this can encourage mould growth.

Note: A spacer gives the correct gap for Hardie™ Glaze Lining Tile and Hardie™ Glaze Lining 6mm (refer to Figure 26).

Sealing Penetrations:

- Apply sealant around taps and fixture penetrations after fixing the sheets into place.

Step 9: Finishing touches

Only use specific masking tapes on surface, refer Table 8. Incorrect tapes can cause coating removal.

- Clean up all sheets and jointers with kerosene on a clean cloth to remove all pencil marks, adhesive or excess sealant.
- Remember to maintain the sheets and clean on a regular basis (refer Section 9).

6.1 Framing

The following framing must be provided for the installation of Hardie™ Glaze Lining:

- Framing be minimum 45mm wide
- Studs provided at 600mm centres maximum
- Continuous top and bottom plates
- Nogs at 1200mm maximum centres

6.2 Tolerances

In order to achieve an acceptable wall finish, it is imperative that framing is straight and true. Framing tolerances must comply with the requirements of the NZS 3604 and the manufacturer's specifications. All framing must be made flush. The visual aspects of the finished lining can between two different sites or the builders installing the product. It is recommended that you also refer to a building guidance document published by MBIE to understand an acceptable level of tolerances allowed in building materials and workmanship. **www.building.govt.nz, Guide to tolerances, materials and workmanship in new residential construction 2015**

Hardie™ Glaze Lining are manufactured to a size tolerance of 3mm when measured diagonally.

6.3 Sheet Fixing Requirements

All fixing for walls and ceilings must comply with this specification.

At all adhesive-fixed sheet joints, the centre line of the joint must coincide with the centre line of the stud, nog or plate. This is to ensure sufficient adherence of adjoining sheets to the frame along the sheet edges.

Best practice notes: In wet areas you must use:

1. Use a factory sealed edge at the bottom.

2. If there is any variation in quality of the factory sheet edges, put the best sheet edge to the bottom.

Fix the sheet from the centre working towards the outside, to avoid drumminess.

Fix 4.5mm and 6mm Hardie™ Glaze Lining to the timber or steel frame using solvent-based or foam polyurethane wallboard adhesive (to the centres shown in the relevant diagrams), to the perimeter of all sheets, intermediate studs, plates and nogs. For further adhesive instructions refer to adhesive fixing clause in this manual.

Sheets must be fixed 6mm clear of the floor for general wall applications. Care must be taken to ensure that this gap does not become filled with residue during the construction process.

Fix uPVC or aluminium mouldings with nails at 300mm maximum centres.

Aluminium mouldings may also be fixed to frame with C-25 brad nails at 300mm maximum centres.

For sheets with a shower base refer to Figures 39 - 41.

Cut-edge sealing

Before any sealants are applied to site-cut Hardie™ Glaze Lining sheet edges, the raw edge must be site primed. Use Dulux® 1 Step, Dulux® Acraprime® 501/1 or similar. Be careful not to miss any areas. All site-cut sheet edges for silicone joints must be site sealed. All Hardie™ Glaze Lining 6mm sheet edges must be sealed for all installations. For best results in shower applications always use the factory-finished edge for the bottom drip edge.

6.4 Fixing for Specific Applications

Table 9

Specific application	Lining	Fixing method options for walls and ceilings
Wet or dry areas that require a sealed impervious surface	Hardie™ Glaze Lining 4.5mm Hardie™ Glaze Lining Tile Hardie™ Glaze Lining 6mm	Use one of the following: • Adhesive (for walls, refer to Figure 4 and 5; for ceilings, refer Figure 7). • Adhesive/Fastfix (refer Figures 8 and 9).
Dry areas	Hardie™ Glaze Lining 4.5mm Hardie™ Glaze Lining Tile Hardie™ Glaze Lining 6mm	Use one of the following: • Adhesive (for walls, refer to Figure 4 and 5; for ceilings, refer Figure 7). • Adhesive/Fastfix (refer Figures 8 and 9). • Adhesive/Screw (refer to Figure 4 and 10).
Wet or dry areas that require moderate protection from dirt and bacteria	Hardie™ Glaze Lining 4.5mm Hardie™ Glaze Lining Tile Hardie™ Glaze Lining 6mm	Use one of the following: • Adhesive (for walls, refer to Figure 4 and 5; for ceilings, refer Figure 7).
Strict hygiene (MAF compliance)	Hardie™ Glaze Lining 6mm	Walls: • Adhesive (refer to Figure 4 and 5). Ceilings: • Adhesive (refer Figure 7)

6.5 Adhesive Fixing Only

Adhesive fixing is used to avoid fixing penetrations in the sheet face. Fix Hardie™ Glaze Lining to the framing with a good-quality polyurethane wallboard adhesive.

For adhesive fixing the Hardie™ Glaze Lining sheet can either be fixed in conjunction with Hardie™ two sided adhesive tape or the sheet can be temporarily braced for approximately 24 hours to allow the adhesives to cure and gain full adhesion.

When using two sided adhesive tape, apply long strips of tape on the framing with 15mm daubs of adhesive beside which are applied at 200mm centres to the entire framing. Refer to Section 9 for figure.

Do not apply double sided tape on the stud where a jointer is fixed as the tape will not allow the Hardie™ Glaze Lining sheet to slide into the jointer.

When using the temporary bracing method always ensure that the edges and the sheet surface is braced adequately and protect the sheet surface against scratching. The bracing member should be aligned with the framing behind Hardie™ Glaze Lining. Support and temporarily brace the sheets during adhesive setting, in accordance with the adhesive manufacturer's instructions.

Wallboard adhesives should be suitable for Hardie™ Glaze Lining applications in accordance with this manual. Recommended adhesives include: Sika® Nailbond® Fast, Sika® NailBond® PB, Fuller™ Max Bond™, Bostik® Tuf As Nails, Bostik® 'Seal-N-Flex-1', Selleys® Liquid Nails, Sikaflex®-11FC or similar. Refer to adhesive manufacturers' recommendations to ascertain suitability for the intended use.

- Clean the frame surface before applying the adhesive. Also clean the back surface of Hardie™ Glaze Lining before fixing to remove any loose material/dust.
- Never force sheets into position.
- Place daubs of wallboard adhesive on studs/intermediate studs or battens and nogs at 200mm centres
- Refer to adhesive manufacturer's recommendations to ascertain if adhesive installation should be daubs or continuous bead and the appropriate size of either.

- Fit aluminium sheet jointers to both sides of the Hardie™ Glaze Lining sheet or allow spacings between the sheets for silicone joints.
- In wet areas, you must use silicone sealant in the jointers and mouldings.
- The aluminium sheet jointers are brad nail fixed into position at 300mm max centres.
- The edge of the sheets must be spaced appropriately when silicone jointing method is used.
- Once the sheets are adhesive fixed and finally in place, either the temporary bracing is required or adhesive tape is used to hold the sheet. Always protect the sheet surface against scratching.

Notes:

1. Refer to adhesive manufacturer's recommendations for use.
2. The contact method of adhesive bonding can also be used by experienced builders.
3. Ensure the room is well ventilated when working with solvents.

Figure 4: Hardie™ Glaze Lining Adhesive fixing detail

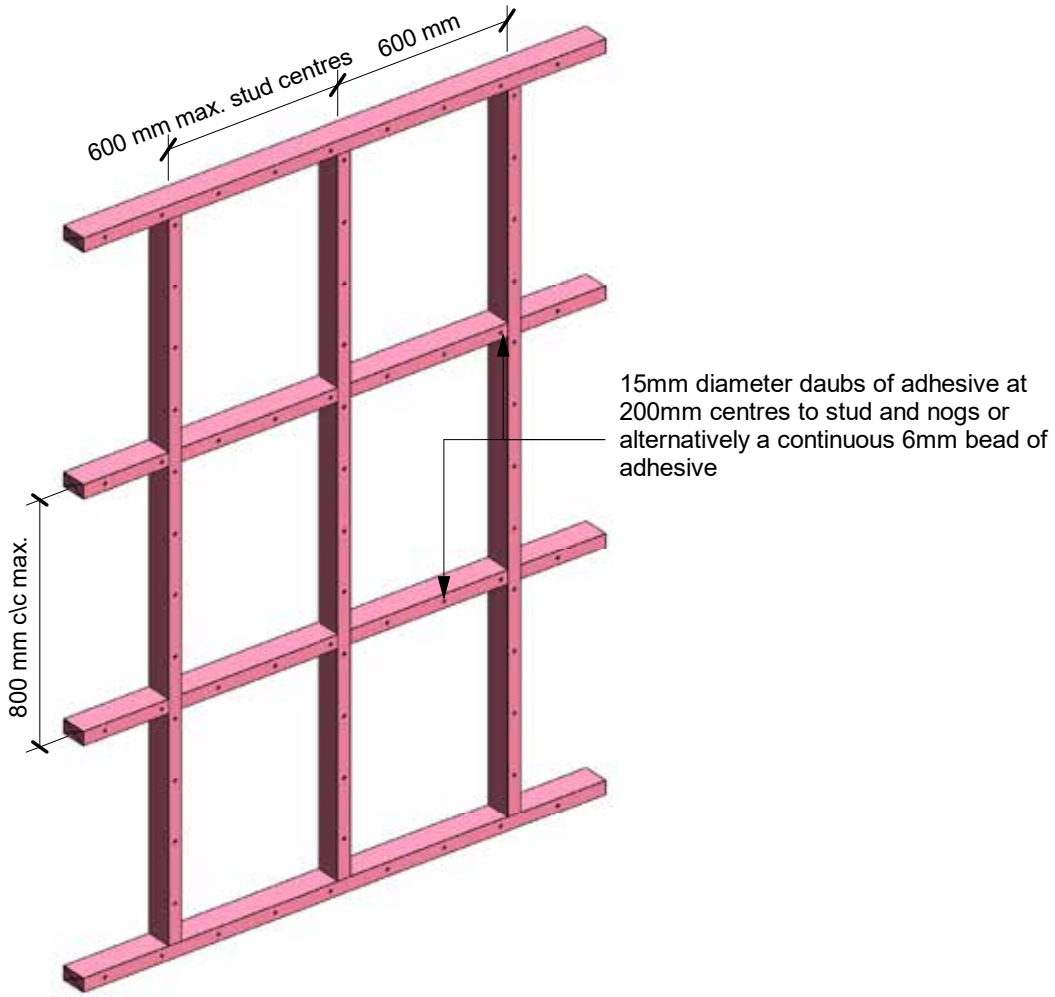


Figure 5: Hardie™ Glaze Lining fixing to walls tape and adhesive method

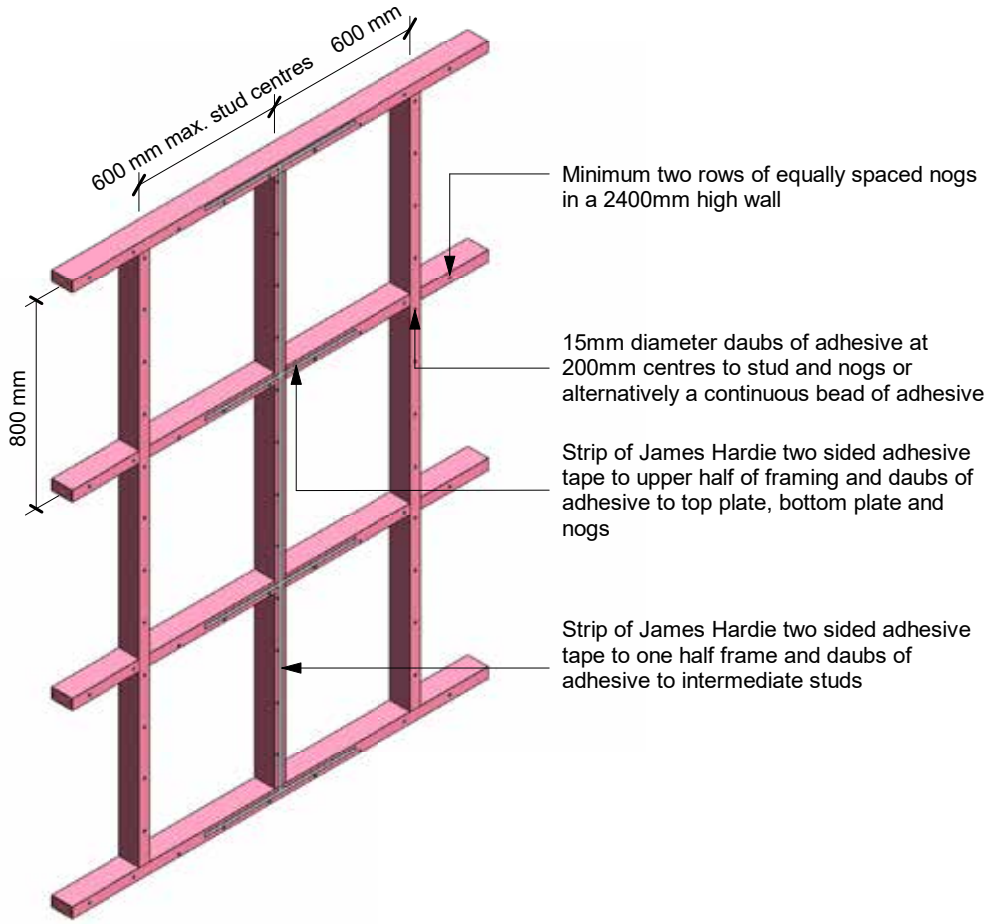
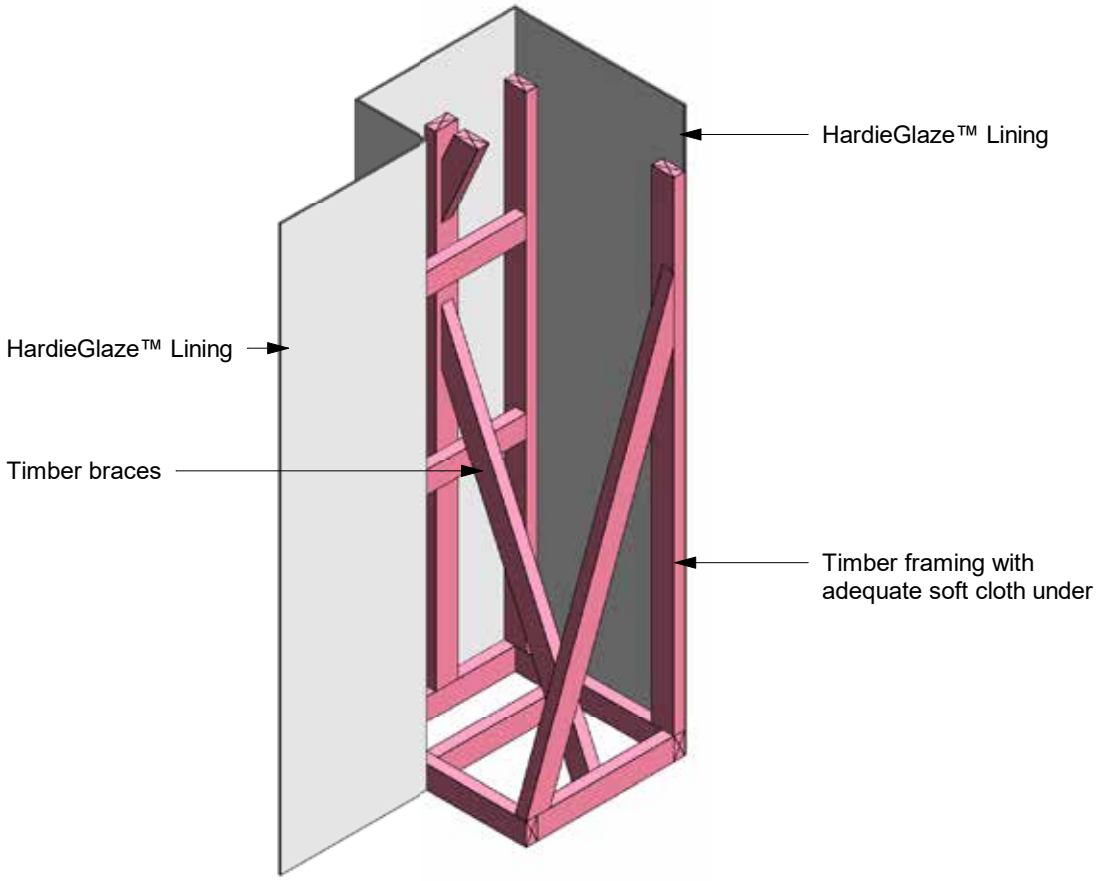
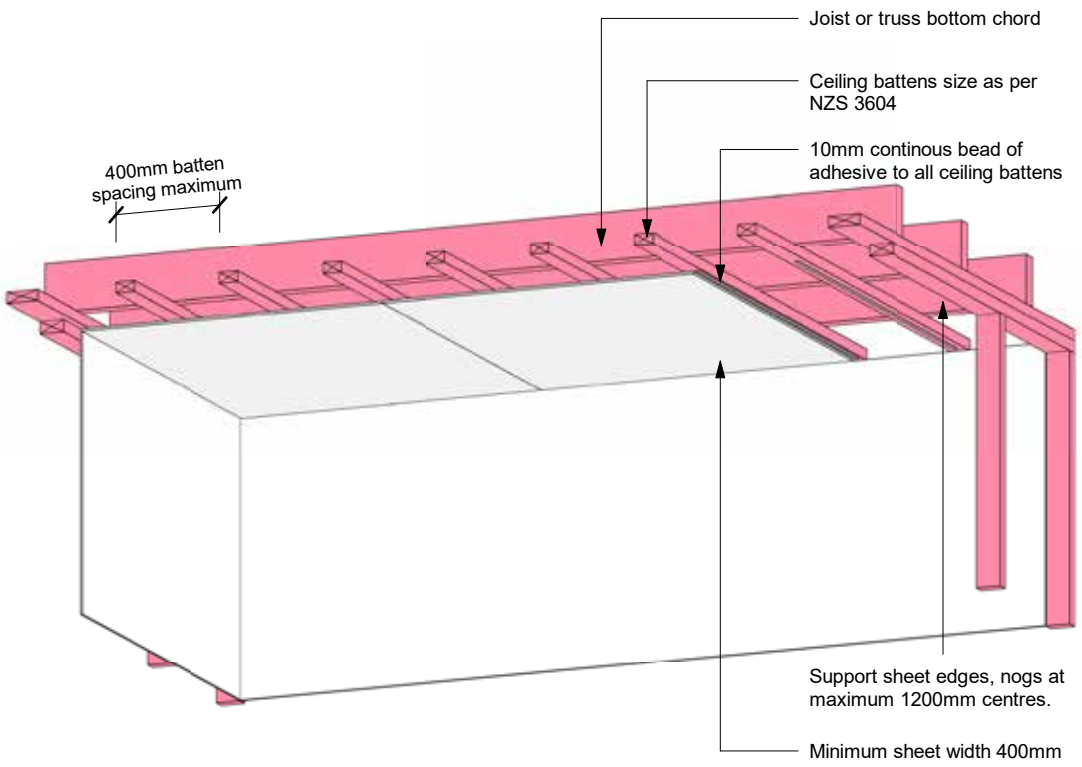


Figure 6: Temporary Hardie™ Glaze Lining brace detail



Notes:
Ensure edges are well braced and timber braces are aligned over solid framing behind

Figure 7: Hardie™ Glaze Lining fixing to ceilings - adhesive method



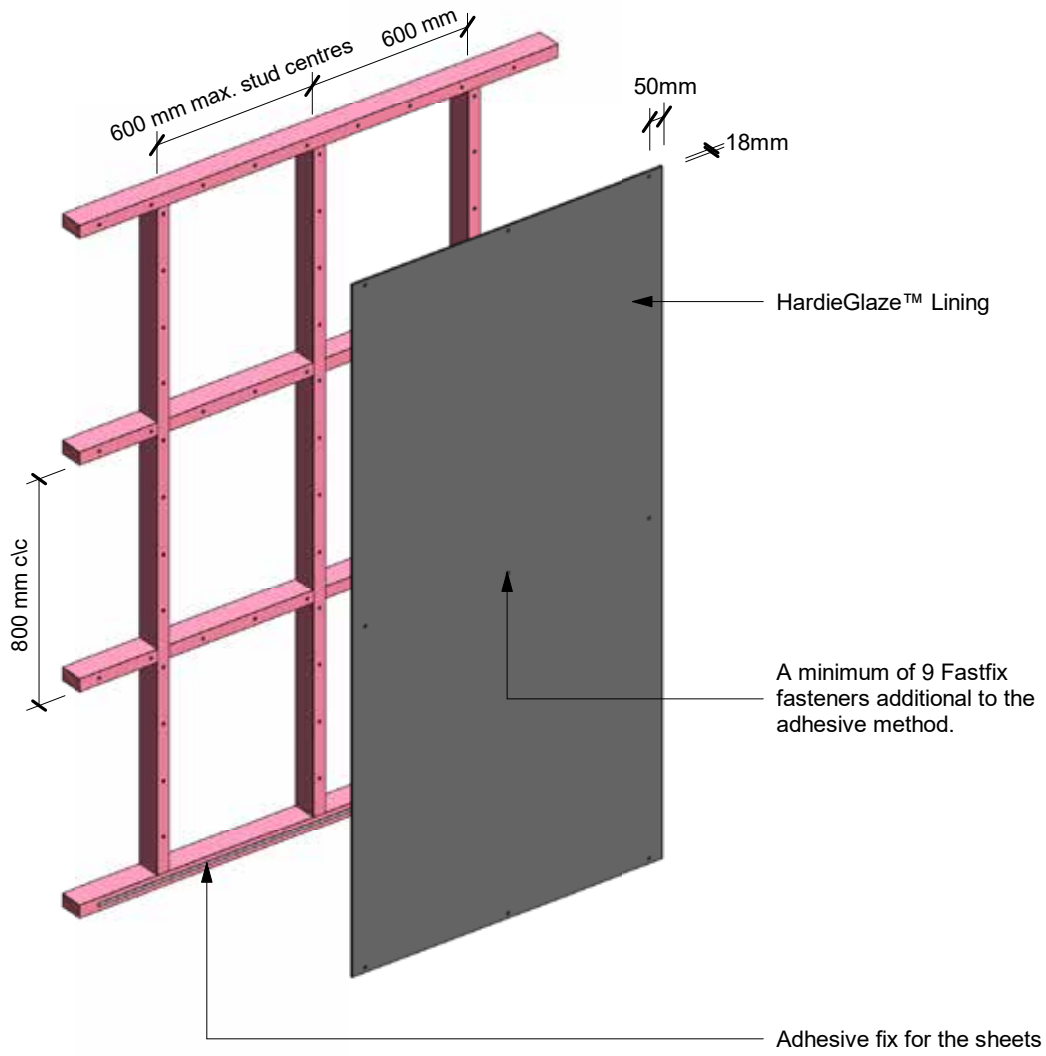
Notes:
This method requires the sheets to be fully braced temporarily while the adhesive cures.
Bracing member should be aligned with the framing behind prefinished Lining.

6.6 Adhesive/Fastfix Fixing

This method uses adhesive as the main sheet fixing, combined with a minimum number of Fastfix fasteners to hold the sheet in place while the adhesive sets. This method is particularly suitable for walls and ceilings where temporary bracing may be difficult (refer Figure 8).

Note: Temporary bracing must be applied to the sheet areas between the Fastfix fasteners, to avoid sag.

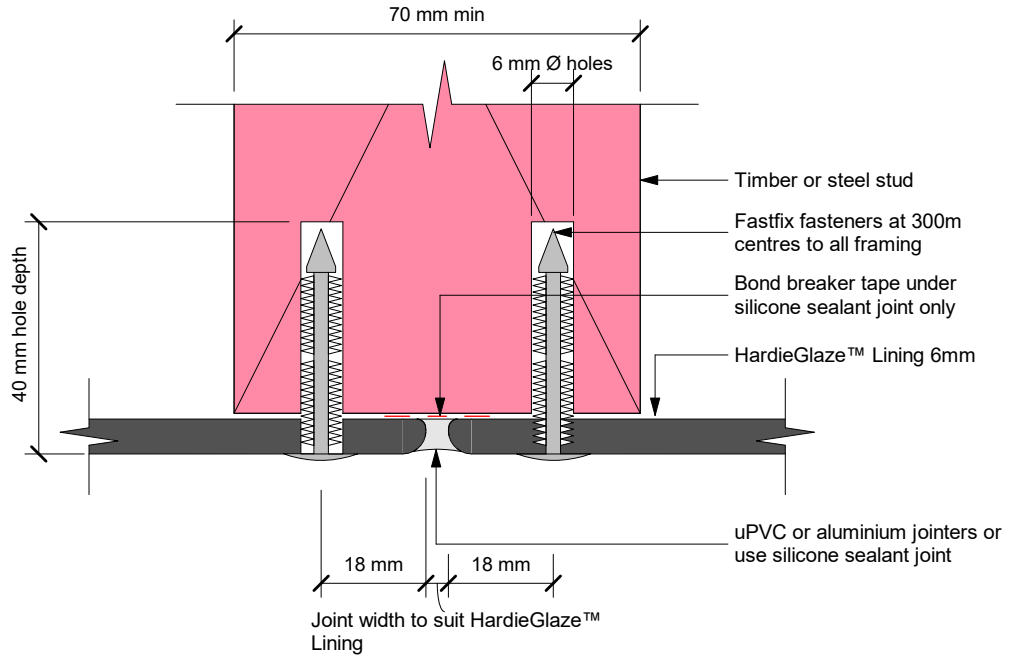
Figure 8: Hardie™ Glaze Lining fixing to walls - fastfix and adhesive



6.7 Fastfix Fixing Only

Sheets can be fixed with Fastfix fixing at 300mm centres to all framing for walls and ceilings (refer Figure 9). This method is a fully visible mechanical fixing method when adhesive fixing is not suitable. This detail is only suitable for walls in dry areas and ceilings in wet or dry areas. Predrill a hole using a 6mm dia drill bit for fixing with Fastfix fasteners.

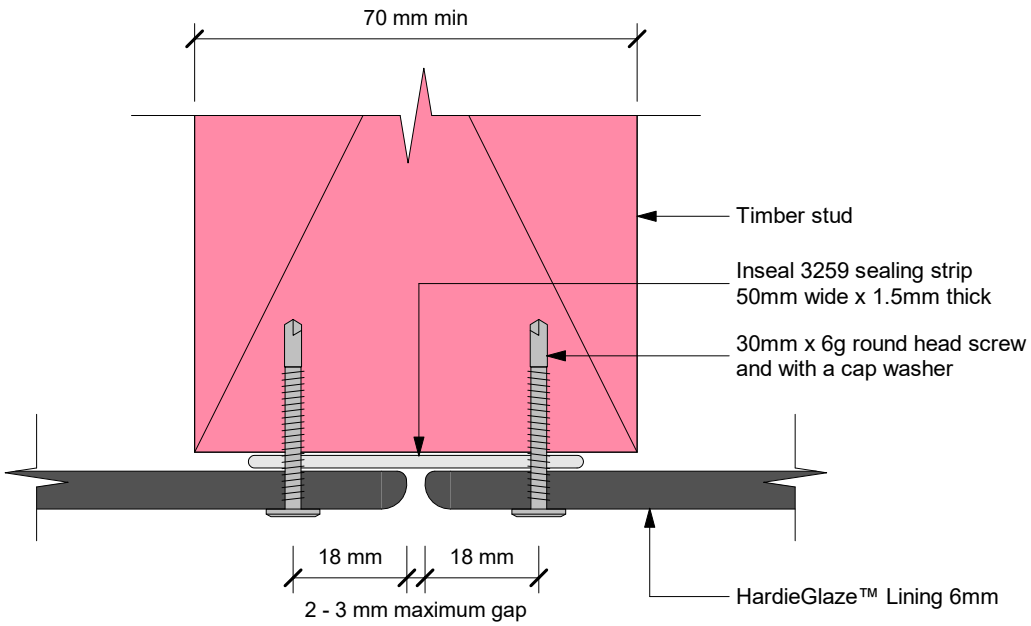
Figure 9: Fastfix detail



6.8 Raised-Head Screw Fixing Method

Hardie™ Glaze Lining can be fixed with raised-head screws at 300mm centres to all framing (refer Figure 10). This method can be used when removable panels are required. Predrill a hole for fixing with a screw. This detail is only suitable for walls in dry areas and ceilings in wet or dry areas.

Figure 10: Exposed screws fixing



6.9 Sheet Set-out and Shower Rose Location

The vertical set-out of Hardie™ Glaze Lining Tile is important because of its pattern. Choose a horizontal set-out datum line because the module must coincide with the horizontal tile pattern line. Set out all sheets to this. The shower rose must be positioned below any ceramic tile inserts or horizontal sheet joints. This is to stop water from the shower rose running behind the Hardie™ Glaze Lining sheet.

6.10 Fixing to Fibre Cement or Plasterboard Substrate

Hardie™ Glaze Lining can either be fixed directly to the framing or fixed directly over Villaboard™ Lining by James Hardie or plasterboard lining.

7 Joints

7.1 Dry Area Wall Joints – Hardie™ Glaze Lining

7.1.1 Joints, Corners and Cap

- Fix mouldings at max 300mm centres with nail.
- When using a cap mould, cut the vertical jointer shorter to suit

Hardie™ Glaze Lining 4.5mm

- uPVC or natural anodised aluminium jointers

Hardie™ Glaze Lining 6mm

- uPVC/natural anodised aluminium/powder coated coloured aluminium jointers

Figure 11: Hardie™ Glaze jointer 4.5mm uPVC

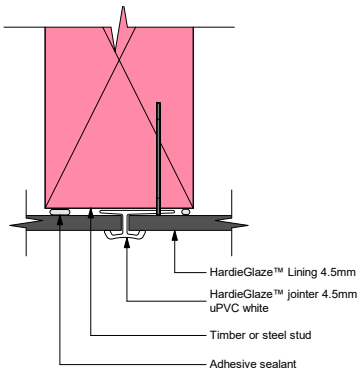


Figure 12: Hardie™ Glaze internal corner 4.5mm uPVC

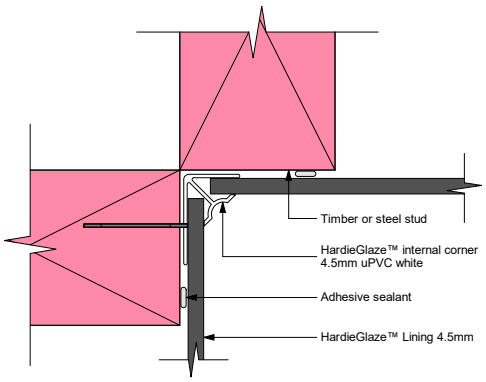
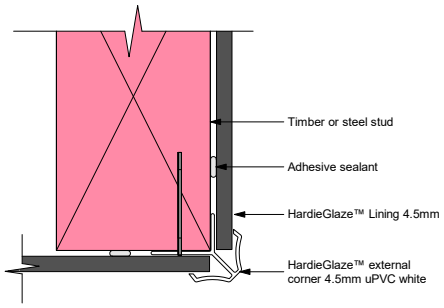


Figure 13: Hardie™ Glaze external corner 4.5mm uPVC



Note: For showers and similar wet areas the uPVC jointer must be silicone-sealant filled

Figure 14: Hardie™ Glaze jointer 4.5mm aluminium

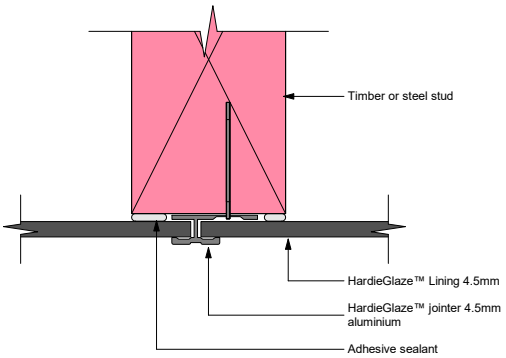


Figure 15: Hardie™ Glaze internal corner 4.5mm aluminium

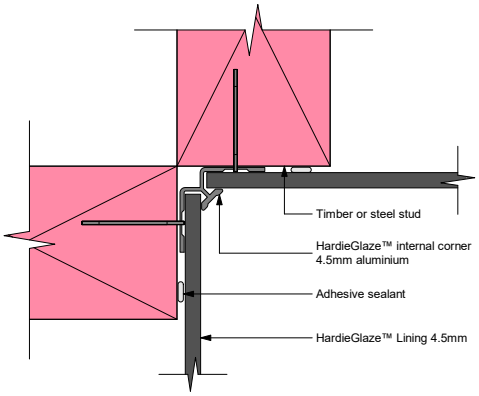
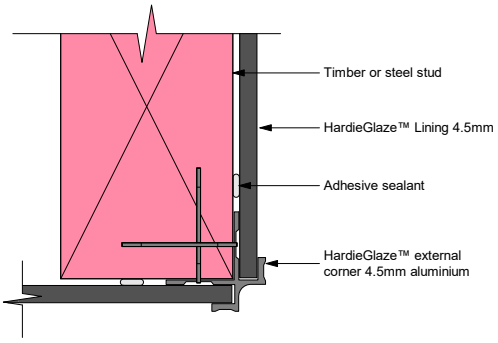


Figure 16: Hardie™ Glaze external corner 4.5mm aluminium



7.1.2 Wall to Ceiling joint

- Use either a timber moulding/cap moulding or Hardie™ uPVC scotia mould

Figure 17: Hardie™ Glaze Lining 4.5mm scotia mould options

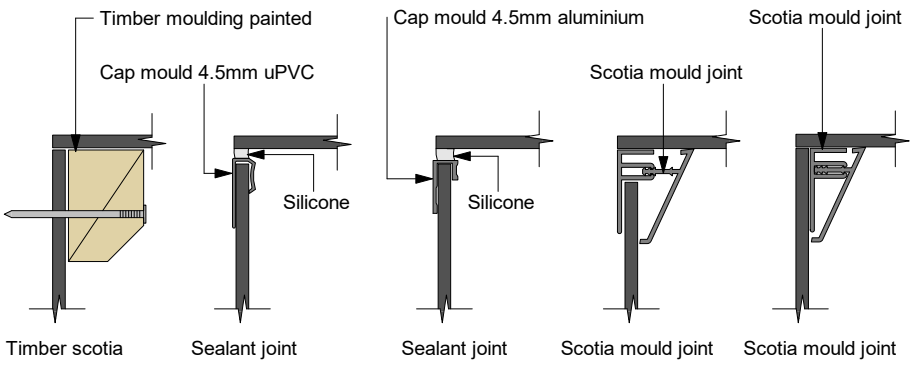


Figure 18: Hardie™ Glaze jointer 6mm uPVC

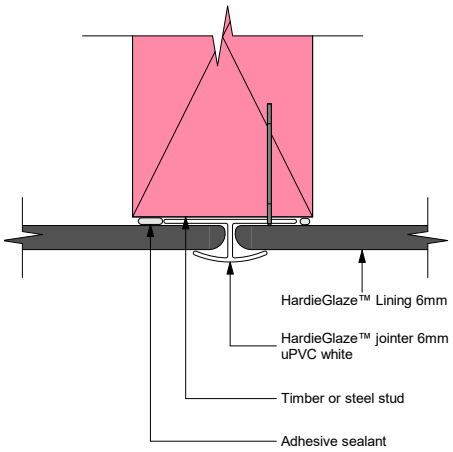


Figure 19: Hardie™ Glaze internal corner 6mm uPVC

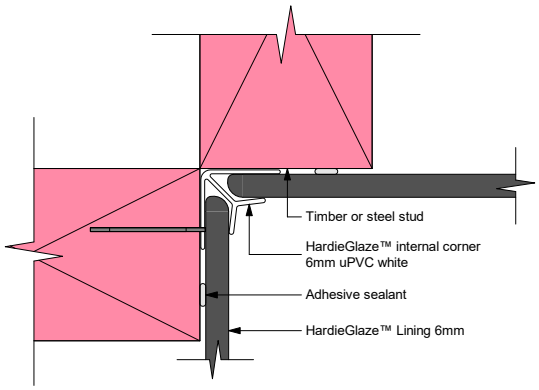
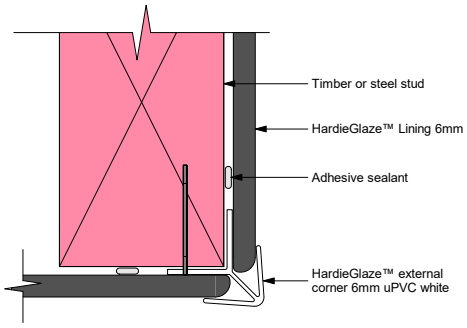


Figure 20: Hardie™ Glaze external corner 6mm uPVC



Note: For showers and similar wet areas the uPVC jointer must be silicone-sealant filled

Figure 21: Hardie™ Glaze internal corner 6mm 2part uPVC

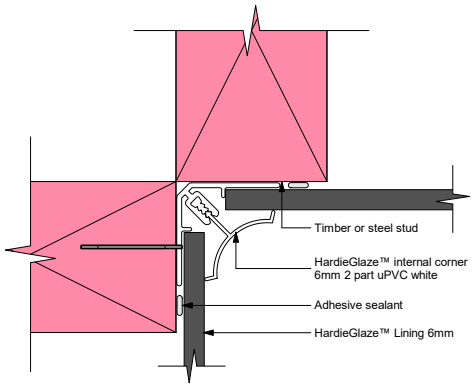


Figure 22: Hardie™ Glaze jointer 6mm aluminium

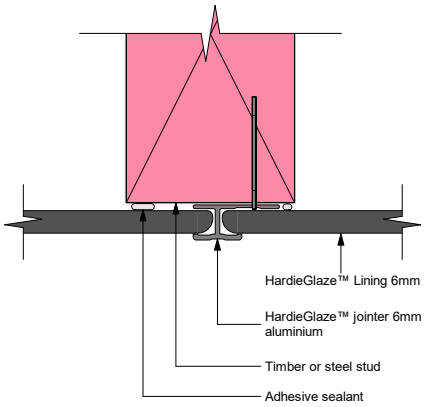


Figure 23: Hardie™ Glaze internal corner 6mm aluminium

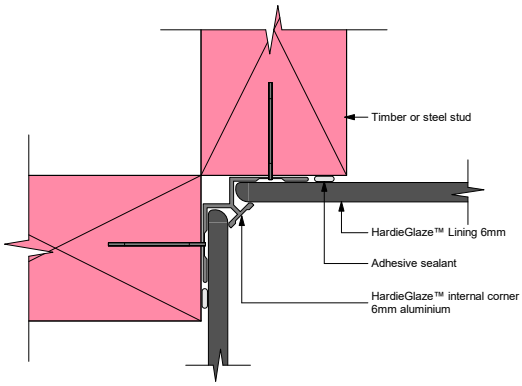
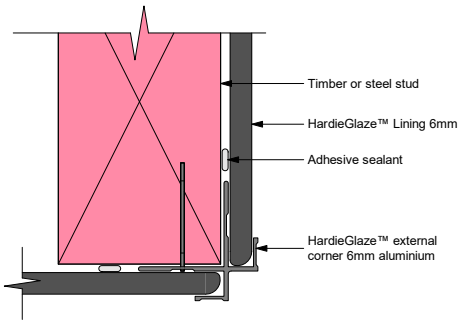
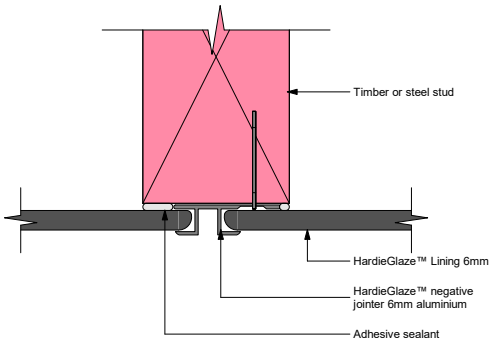


Figure 24: Hardie™ Glaze external corner 6mm aluminium



Note: For showers and similar wet areas the aluminium jointer must be silicone-sealant filled.

Figure 25: Hardie™ Glaze negative jointer 6mm aluminium



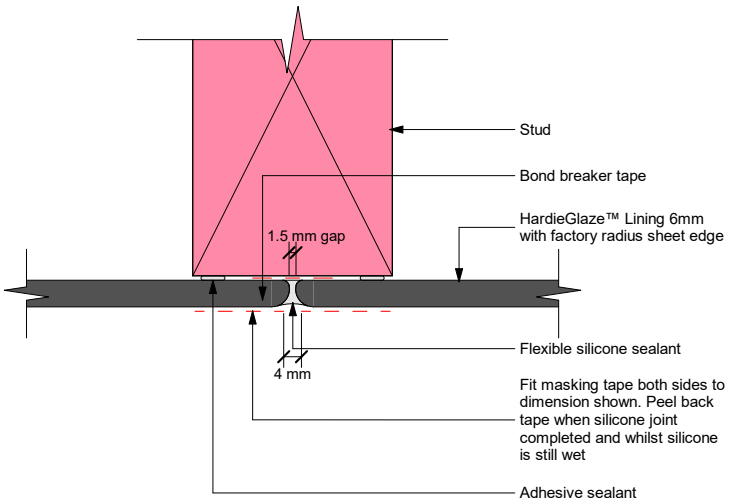
7.2 Silicone Joints

This method only suitable for dry areas.

This method of jointing applies to Hardie™ Glaze Lining 6mm only which has factory radiused edges.

- Fix bondbreaker tape to the framing behind the joints before fixing sheets (refer Figure 26).
- Peel back the protective film from the sheet edge.
- Ensure the sheet edge is prepared for a silicone joint. The factory-painted, radiused sheet edge should be used for all flat joints. (refer Figure 26).
- For an internal corner place the site cut edges sand papered and well primed into corner first, then place factory finished edge 3-4mm from the face of the first sheet.
- Once the sheet edge is prepared, fit the first sheet on one side of the joint, fix a spacer in position at 300mm centres approximately, but do not nail fully in. Place the next sheet on the wall and firmly push onto the spacer to give the correct gap for the silicone joint (refer Figure 26).
- Temporarily brace the edges and centre of the sheet as required. Allow adhesive to be fully cured (as per manufacturer's instructions).
- Accurately mask each side of the joint with the recommended masking tape. Refer Table 5. Incorrect tapes can cause coating removal.
- Prime the joint to be silicone sealed according to the manufacturer's instructions.
- Apply the silicone sealant, neatly finish and remove the masking tape only when all sealant operations are complete and whilst sealant is still wet.
- Do not touch silicone sealant with bare fingers as this can encourage mould growth. Use a plastic spoon, wear rubber gloves or cover finger with a plastic bag.

Figure 26: Hardie™ Glaze Lining 6mm silicone joint



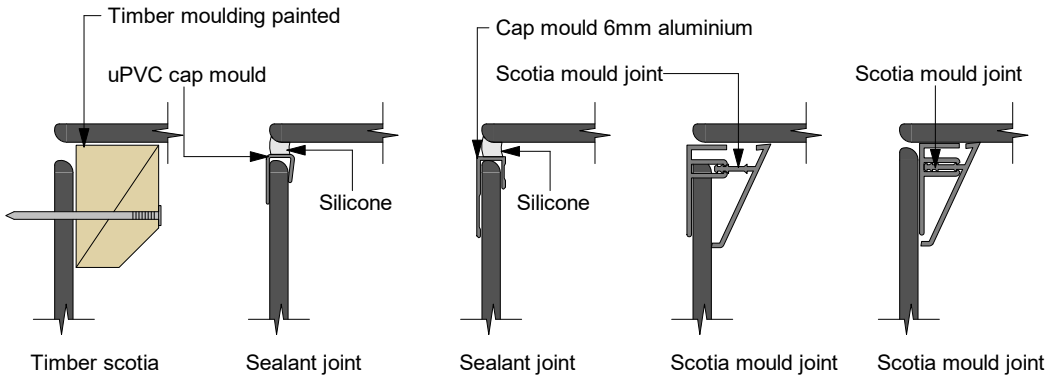
Sealant notes:

1. Cut edges must be site sealed with Dulux® 1 Step, Dulux® Acraprime® 501/1 or similar before sealant is applied.
2. Silicone seal the joint. For full application instructions refer to the sealant manufacturer. Suitable sealants are listed in Table 8.

7.2.2 Wall to Ceiling joint

- Use either a timber moulding/cap moulding or Hardie™ uPVC scotia mould

Figure 27: Hardie™ Glaze Lining 6mm scotia mould options



7.3 Wet Area Wall Joints – Hardie™ Glaze Lining

When the uPVC or aluminium jointer method is used for wet area applications, ensure that all the sheet edges have been sealed into jointers with a silicone sealant.

A sealant only joint must not be used in shower applications.

7.3.1 Joints, Corners and Cap

Fix mouldings at max 300mm centres with nail.

When using a cap mould, cut the vertical jointer shorter to suit

Hardie™ Glaze Lining 4.5mm

- uPVC or natural anodised aluminium jointers

Hardie™ Glaze Lining 6mm

- uPVC/natural anodised aluminium/powder coated coloured aluminium jointers

Figure 28: Hardie™ Glaze jointer 4.5mm uPVC

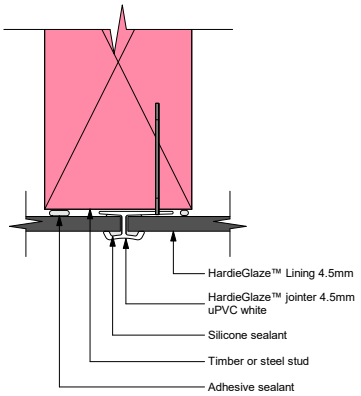


Figure 29: Hardie™ Glaze internal corner 4.5mm uPVC

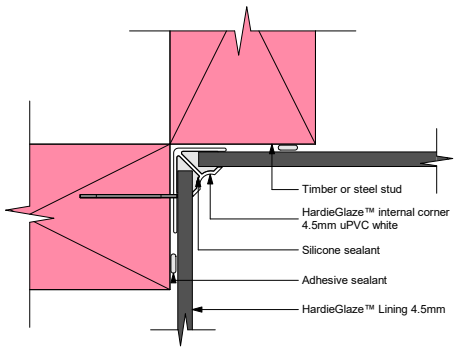


Figure 30: Hardie™ Glaze jointer 4.5mm aluminium

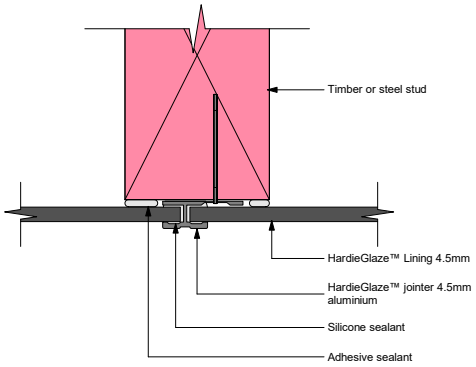


Figure 31: Hardie™ Glaze internal corner 4.5mm aluminium

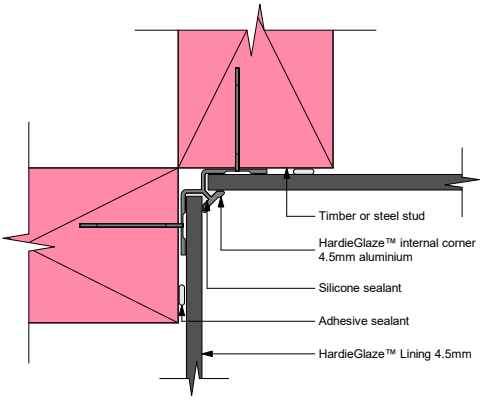
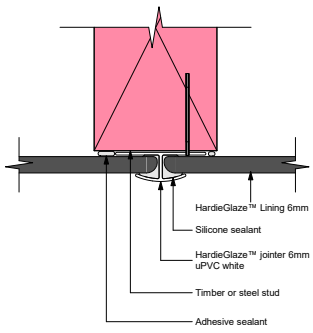


Figure 32: Hardie™ Glaze jointer 6mm uPVC



1. Silicone seal the joint. For full application instructions refer to the sealant manufacturer.
2. The silicone joint is suitable only for raduised edge sheets - HardieGlaze Lining Tile and HardieGlaze Lining 6mm. Do not touch silicone with a bare finger.

Figure 33: Hardie™ Glaze internal corner 6mm uPVC

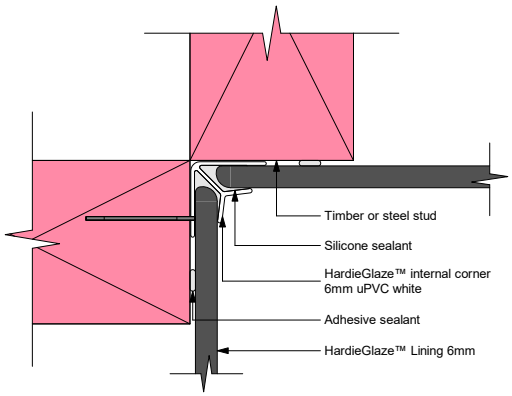


Figure 34: Hardie™ Glaze internal corner 6mm 2part uPVC

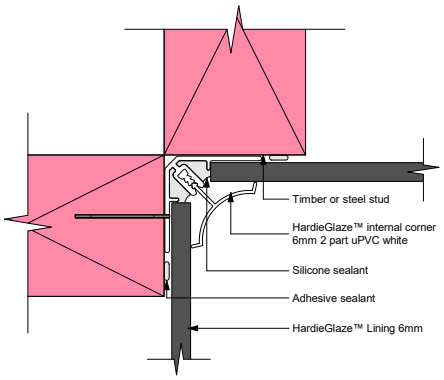


Figure 35: Hardie™ Glaze jointer 6mm aluminium

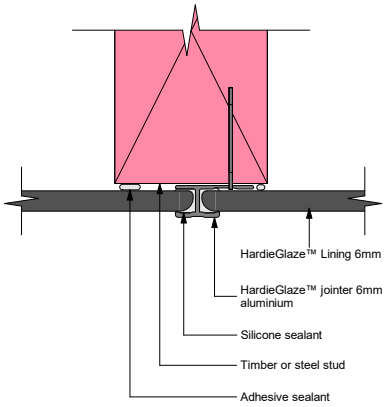


Figure 36: Hardie™ Glaze internal corner 6mm aluminium

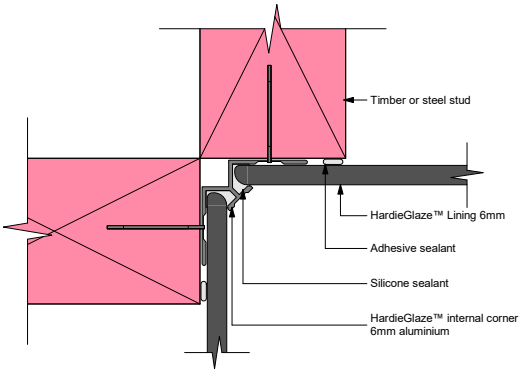
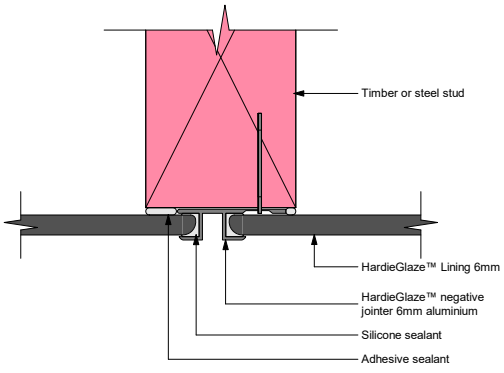


Figure 37: Hardie™ Glaze negative jointer 6mm aluminium



Penetrations:

- Seal all fittings and penetrations through Hardie™ Glaze Lining with a silicone or similar sealant. Use flanges/face plates to cover the penetrations.
- Ensure that adequate moisture management is achieved for the details not covered in this manual. Refer to designer for the details.

Around baths and showers:

- Around baths the silicone detail or uPVC bath mould to be used.

Figure 38: Hardie™ Glaze Lining Bath sealant detail

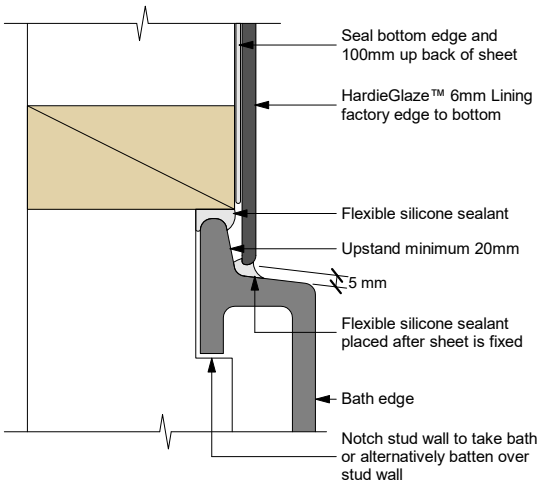


Figure 39: Hardie™ Glaze Lining Bath Mould uPVC

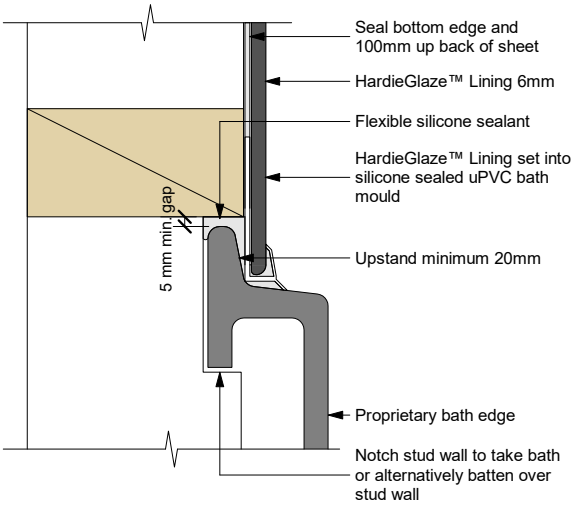
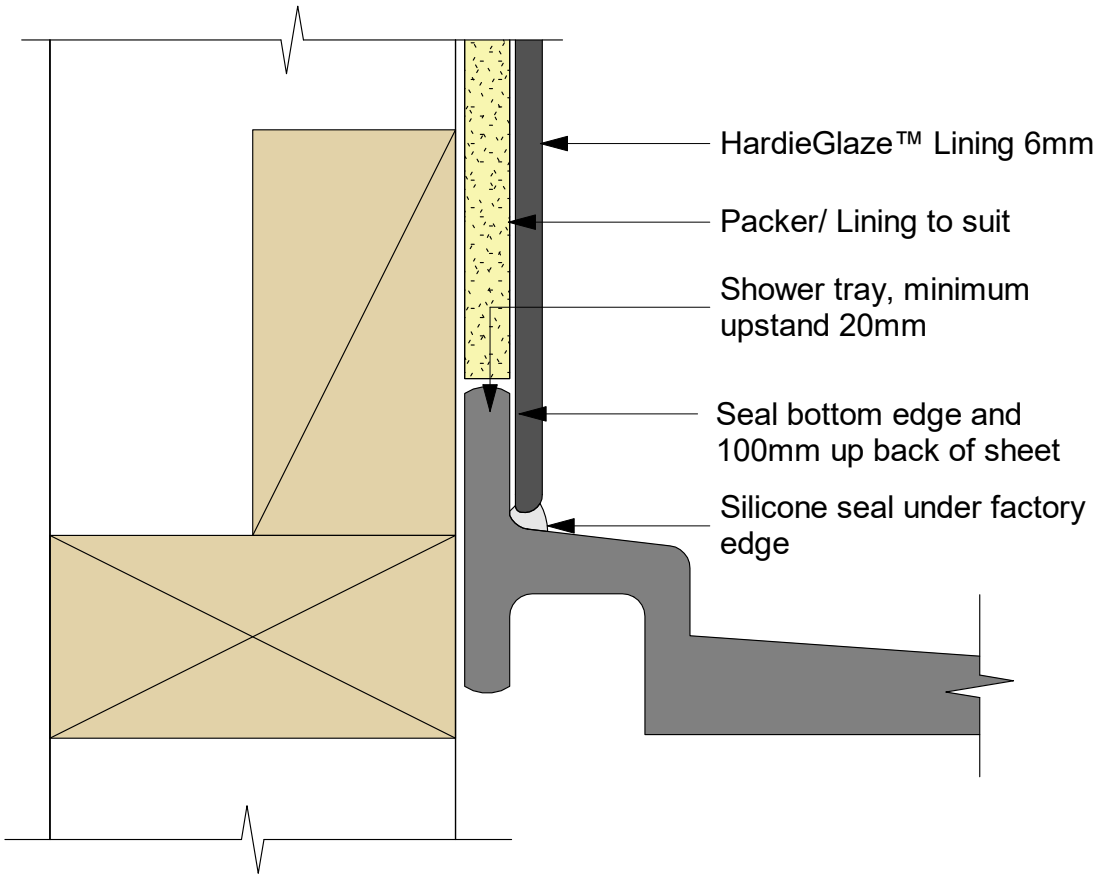


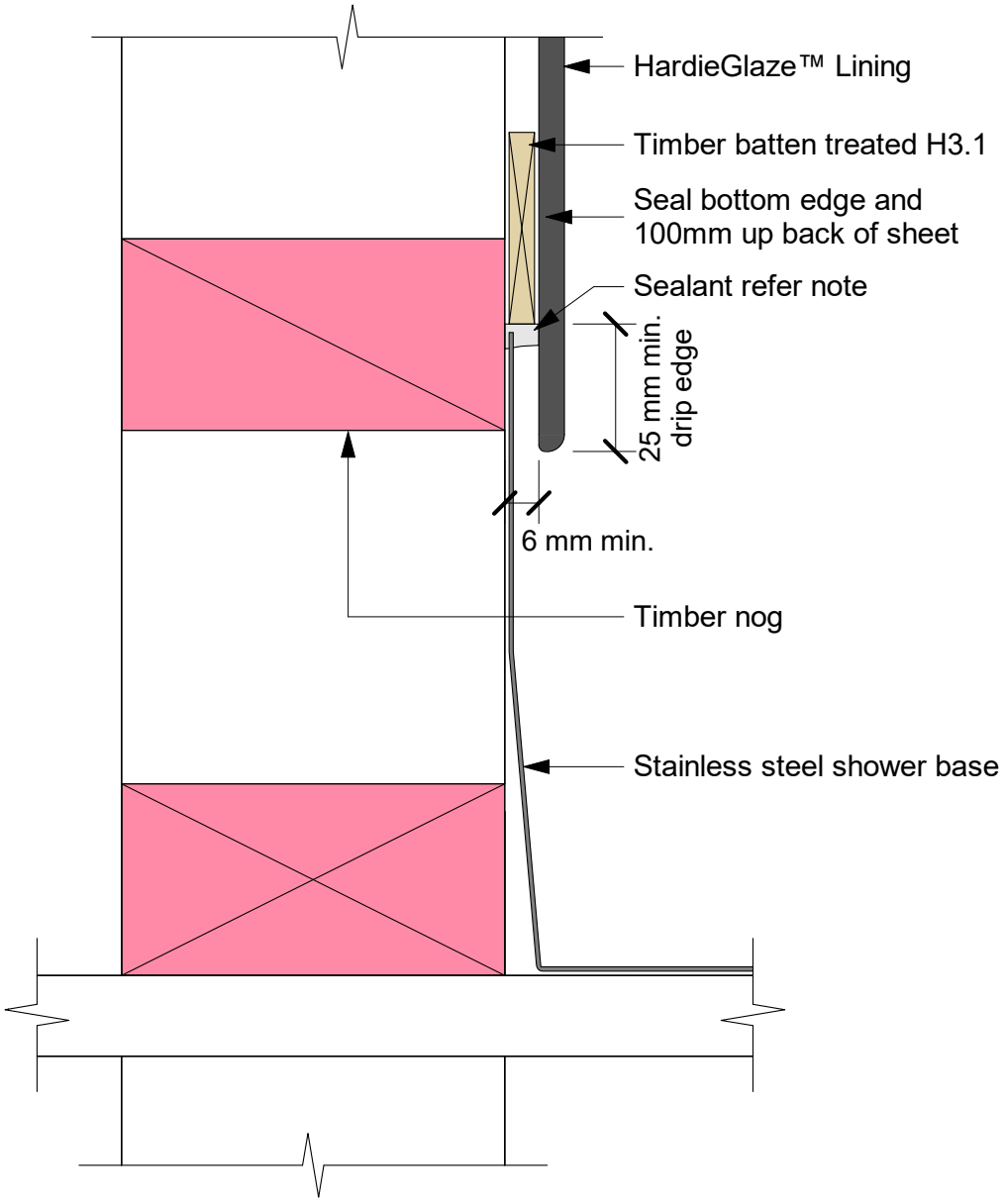
Figure 40: Hardie™ Glaze Lining sealant bath acrylic shower detail



7.3.2 Wet area wall-to-floor joints

- Refer to figures for these junctions
- For a stainless-steel shower installation it is essential that a drip edge is formed at the bottom of the sheet (refer Figure 41).

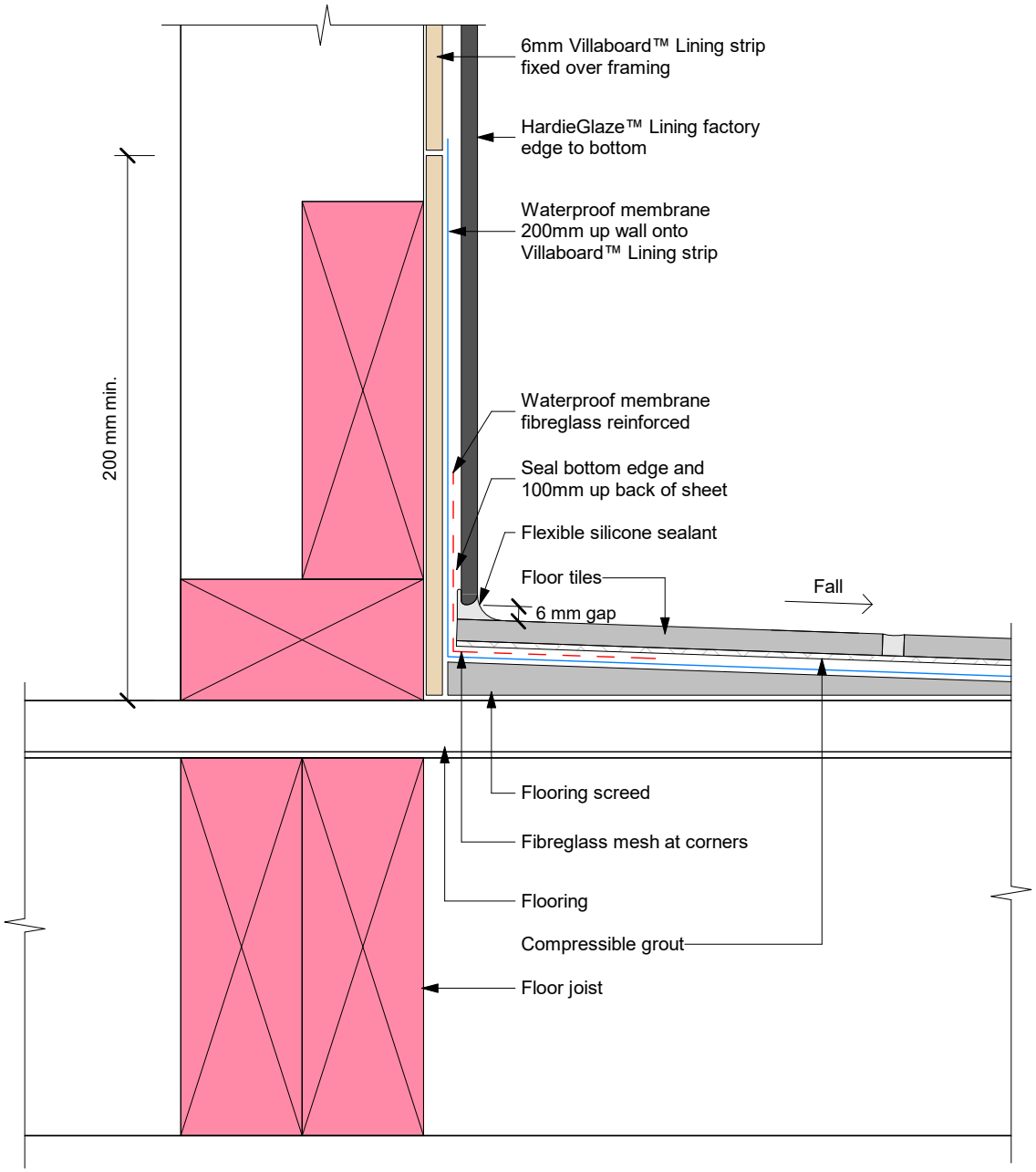
Figure 41: Hardie™ Glaze Lining Stainless steel shower tray



Notes:
It is important to use sealant here to prevent possible damage to the framing.

Note: The shower tray can be notched into the stud to eleminate battening.

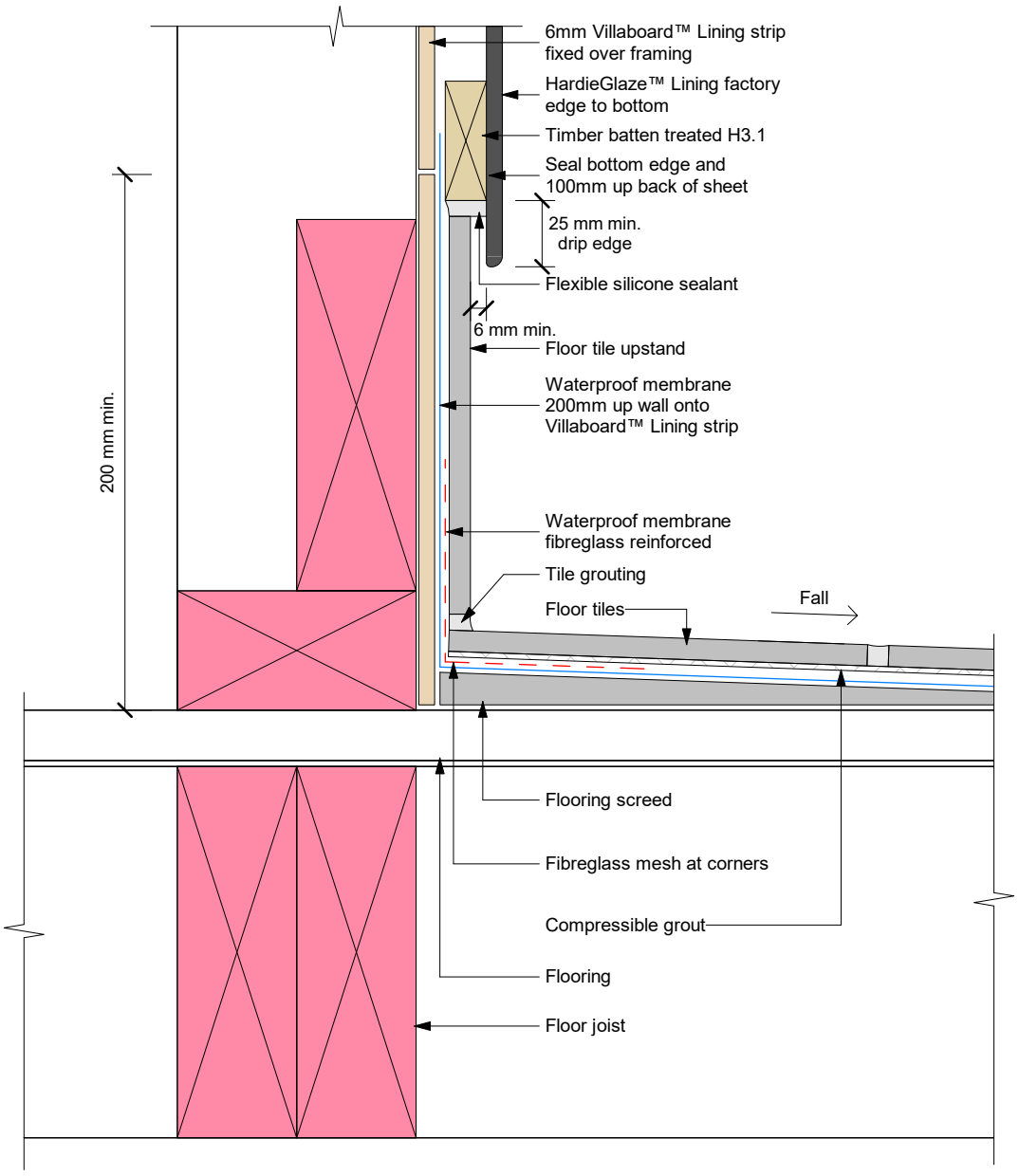
Figure 42: Hardie™ Glaze Lining wall to tiled floor



Notes:
1. Floor to be laid with two directional falls to corner waste. Perimeter edge of waste hole must be a minimum of 50mm from edge of sheet or wall. Build up falls around waste hole before applying waterproof membrane.
2. Tiles to be laid prior to HardieGlaze™ Lining installation.

Note: Tiles to be laid prior to Hardie™ Glaze Lining installation

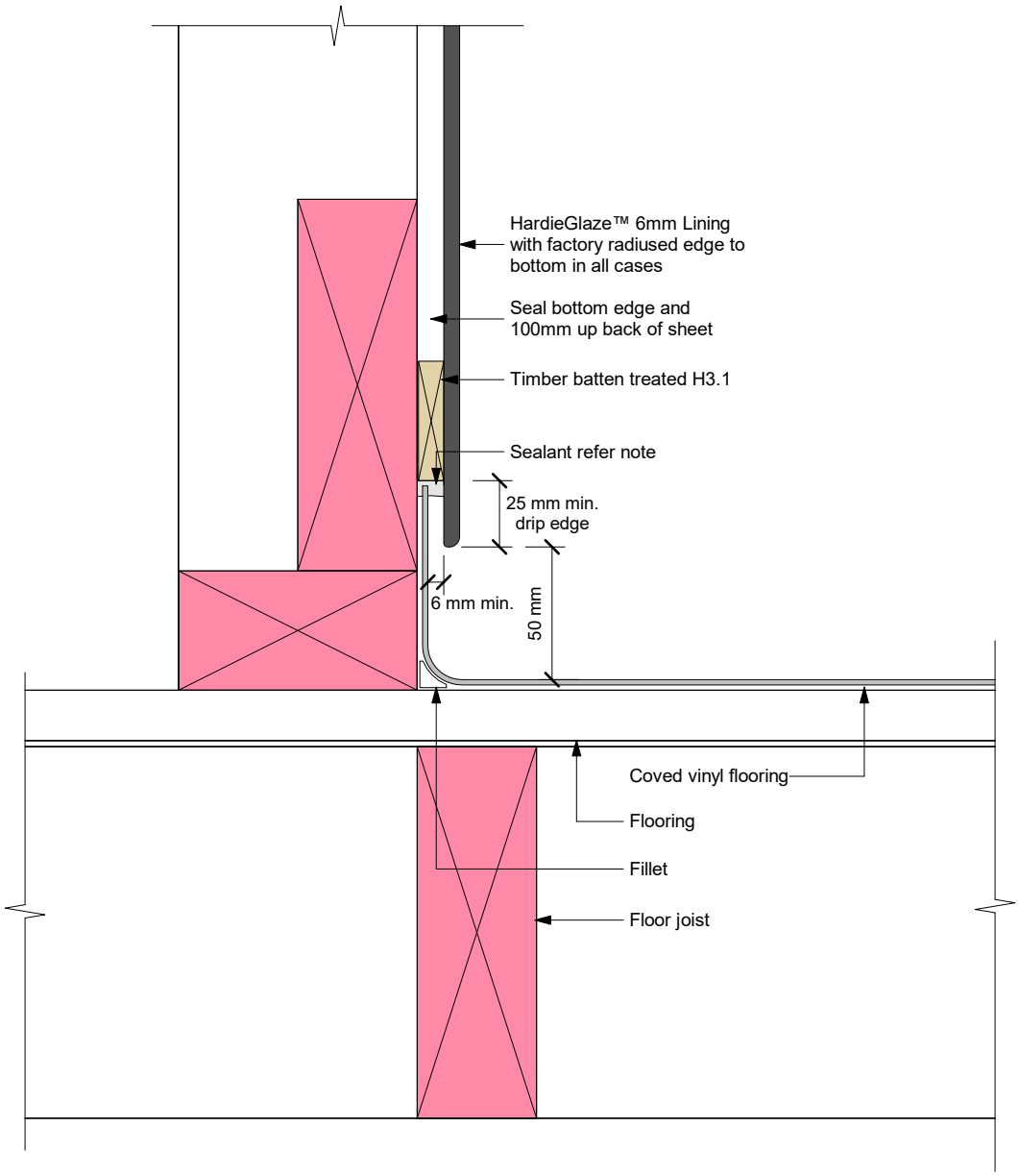
Figure 43: Hardie™ Glaze Lining wall to tiled floor and upstand detail



Notes:
1. Perimeter edge of waste hole must be a minimum of 50mm from edge of sheet or wall. Build up falls around waste hole before applying waterproof membrane.
2. Tiles to be laid prior to HardieGlaze™ Lining installation.

Note: Tiles to be laid prior to Hardie™ Glaze Lining installation

Figure 44: Hardie™ Glaze Lining to coved vinyl floor



Note: It is important to use sealant here to prevent possible damage to the framing.

8 Special Applications

8.1 Indoor Swimming Pool Applications

A chlorine environment is not suitable for some wallboard adhesives therefore when using Hardie™ Glaze Lining in areas such as indoor swimming pool areas, check with the adhesive manufacturer regarding their suitability in this application or use stainless steel screws with cup washers. It is recommended that a higher level of timber treatment is used for timber framing in this environment.

Hardie™ Glaze Lining must be cleaned more frequently when used in a chlorine environment.

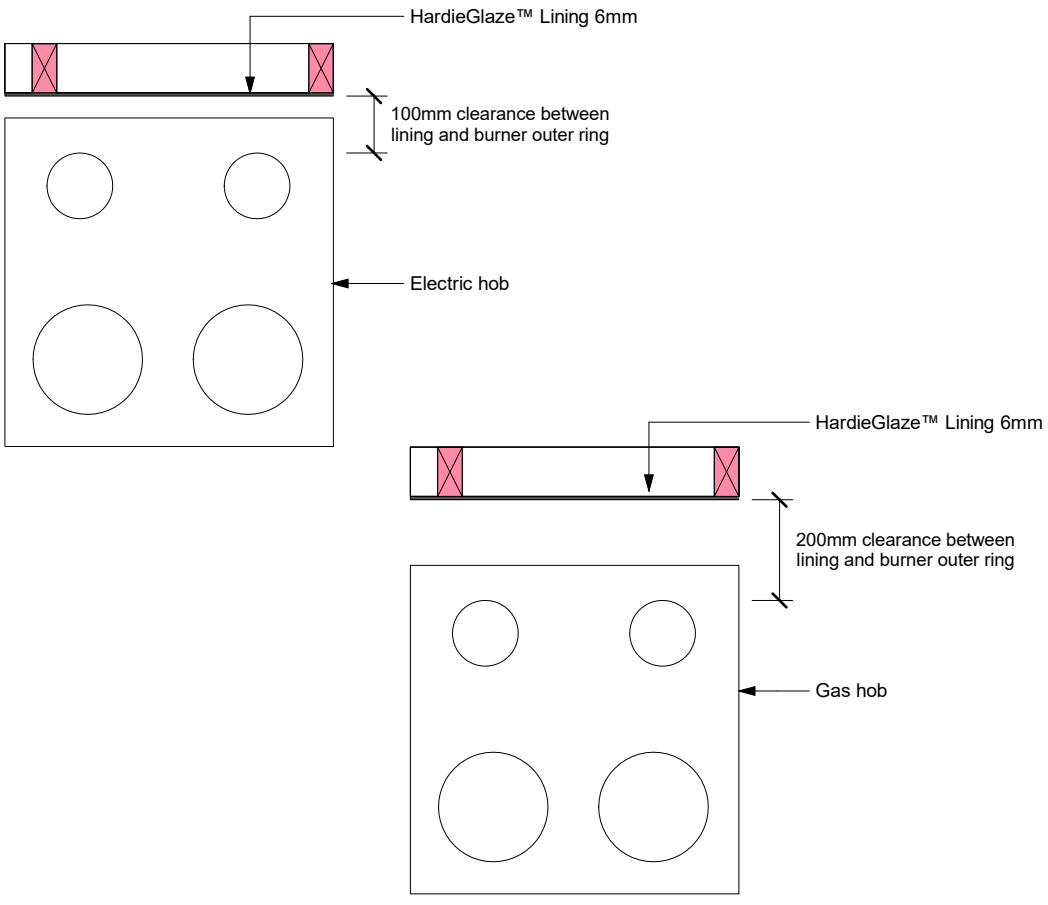
8.2 Splashback

Hardie™ Glaze Lining can be used as a splashback.

Minimum clearance to gas hob being 200mm must be maintained from the closest outer ring of hob.

Minimum clearance to electric element being 100mm must be maintained from the closest outer ring of element.

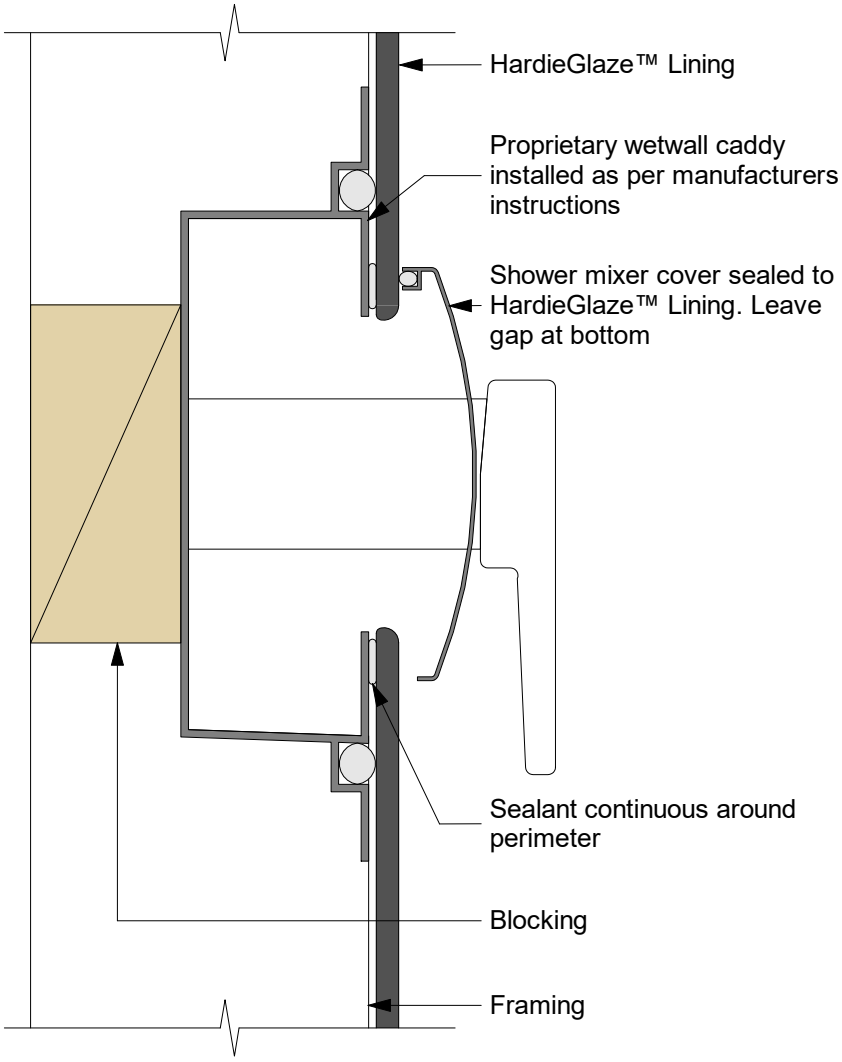
Figure 45: Splashback clearance



8.3 Wet Area Penetration

Wet area wall caddy can also be used with Hardie™ Glaze Lining.

Figure 46: Optional wet wall caddy



Note: Seal cut edges of HardieGlaze™ Lining

8.4 Sealants

All sealants must demonstrate the ability to meet the relevant requirements of the NZBC and hold a current BRANZ Appraisal. Application and use of sealants must comply with manufacturer's instructions. Sealants, if coated, must be compatible with the paint system.

9 Care and Maintenance

9.1 General

Hardie™ Glaze Lining is resistant to damage from moisture, the sheet must still be installed and maintained to resist the penetration of moisture. It is important that the sealants and jointers are prevented from any damage to ensure that water doesn't penetrate behind Hardie™ Glaze Lining.

Regular inspections are required to determine whether any system components need replacing. Refer to cleaning recommendation in clause 10.2.

9.2 Cleaning procedures

Hardie™ Glaze Lining is low maintenance and easy to clean, in order to keep its appearance and performance, we recommend the following cleaning guidelines:

- Always adhere to cleaning manufacturer's instructions
- Always use non-abrasive soft cloths
- No abrasive liquid or cream cleaners should be used if needed
- Do not use scouring pads or abrasive cloths or cleaners (e.g. steel wool) as these can damage the surface
- The removal of dust from the surface of Hardie™ Glaze Lining can be easily achieved with the use of an electrostatic dusting cloth

Product Warranty

James Hardie New Zealand Limited ("James Hardie") warrants to the first purchaser of the Product for a period of 15 years from the date of purchase that the Hardie™ Glaze Lining (the "Product"), will be free from defects due to defective factory workmanship or materials and, subject to compliance with the conditions below, will be resistant to cracking, rotting, fire and damage from termite attacks to the extent set out in James Hardie's relevant published literature current at the time of installation. James Hardie warrants for a period of 15 years from the date of purchase that the accessories supplied by James Hardie to be used in conjunction with the Product will be free from defects due to defective factory workmanship or materials.

Nothing in this document shall exclude or modify any legal rights a customer may have under the Consumer Guarantees Act or otherwise which cannot be excluded or modified at law.

CONDITIONS OF WARRANTY:

The warranty is strictly subject to the following conditions:

a) James Hardie will not be liable for breach of warranty unless the claimant provides proof of purchase and makes a written claim either within 30 days after the defect would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation;

b) this warranty is not transferable;

c) the Product must be installed and maintained strictly in accordance with the relevant James Hardie literature current at the time of installation and must be installed in conjunction with the components or products specified in the literature. To obtain copies of such literature please contact 'Ask James Hardie™ 0800 808 868'. Further, all other products, including coating and jointing systems, applied to or used in conjunction with the Product must be applied or installed and maintained strictly in accordance with the relevant manufacturer's instructions and good trade practice;

d) the project must be designed and constructed in strict compliance with all relevant provisions of the current New Zealand Building Code ("NZBC"), regulations and standards;

e) the claimant's sole remedy for breach of warranty is (at James Hardie's option) that James Hardie will either supply replacement product, rectify the affected product or pay for the cost of the replacement or rectification of the affected product;

f) James Hardie will not be liable for any losses or damages (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, arising in contract or negligence or howsoever arising. Without limiting the foregoing James Hardie will not be liable for any claims, damages or defects arising from or in any way attributable to poor workmanship, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached, incorrect design of the structure, acts of God including but not limited to earthquakes, cyclones, floods or other severe weather conditions or unusual climatic conditions, efflorescence or performance of paint/coatings applied to the Product, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product surface or Product (whether on the exposed or unexposed surfaces);

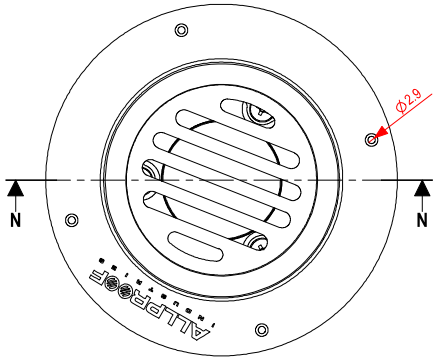
g) all warranties, conditions, liabilities and obligations other than those specified in this warranty are excluded to the fullest extent allowed by law;

h) if meeting a claim under this warranty involves re-coating of Products, there may be slight colour differences between the original and replacement Products due to the effects of weathering and variations in materials over time.

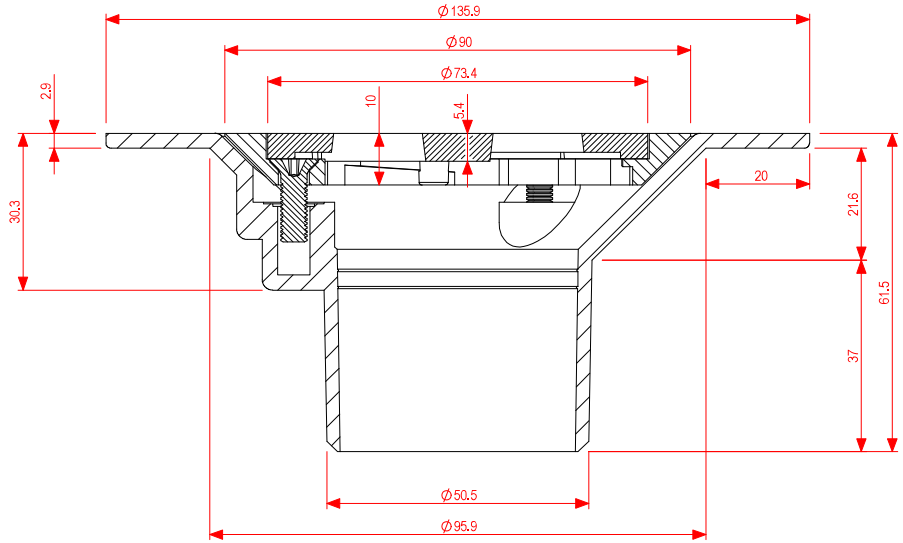
Disclaimer: The recommendations in James Hardie's literature are based on good building practice, but are not an exhaustive statement of all relevant information and are subject to conditions (c), (d), (f) and (g) above. James Hardie has tested the performance of Hardie™ Glaze Lining when installed in accordance with the Hardie™ Glaze Lining installation manual, in accordance with the standards and verification methods required by the NZBC and those test results demonstrate the product complies with the performance criteria established by the NZBC. However, as the successful performance of the relevant system depends on numerous factors outside the control of James Hardie (e.g. quality of workmanship and design) James Hardie shall not be liable for the recommendations made in its literature and the performance of the relevant system, including its suitability for any purpose or ability to satisfy the relevant provisions of the NZBC, regulations and standards, as it is the responsibility of the building designer to ensure that the details and recommendations provided in the relevant James Hardie installation manual are suitable for the intended project and that specific design is conducted where appropriate.

ALLPROOF INDUSTRIES

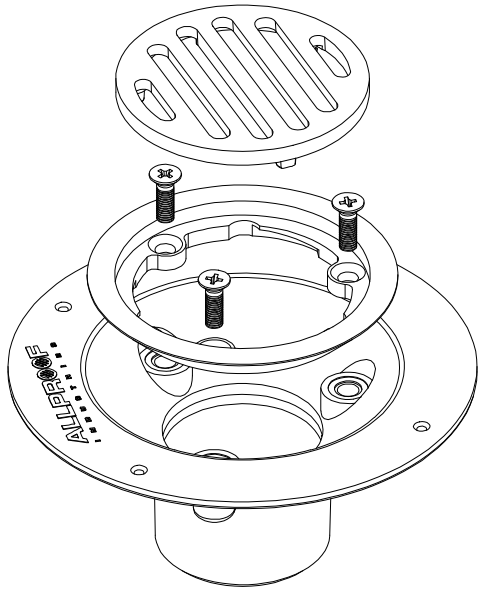
DESCRIPTION	
CODE	FINISH
VR50CP	CHROME PLATED
VR50SS	STAINLESS STEEL
VR50BR	BRASS
VR50NB	NICKEL BRONZE



TOP VIEW



SECTION N-N
SCALE 1 : 1



EXPLODED VIEW

REVISIONS	CHANGES	DRAWN	DATE
XXX	XXX	S.L.	XXX

DO NOT SCALE DRAWING

REQUESTED	A.J	DATE 10.8.2010
DRAWN	S.L.	DATE 15.8.2010
APPROVED		DATE

TITLE: 50MM VINYL RITE WITH CHROME ON BRASS RING/GRATE

APPLICABLE STANDARD(S):

MATERIAL

PART NUMBER: VR50CP

TOOL NUMBER: TBC

PART WEIGHT(GRAMS): TBC

FILE: S/CAD FILES/2014/DIVERSE/VR50CP

A3 | UNITS = MM | SCALE 1 : 2 (UOS) | SHEET 1 OF 1

Technical Data Sheet

WEISS™

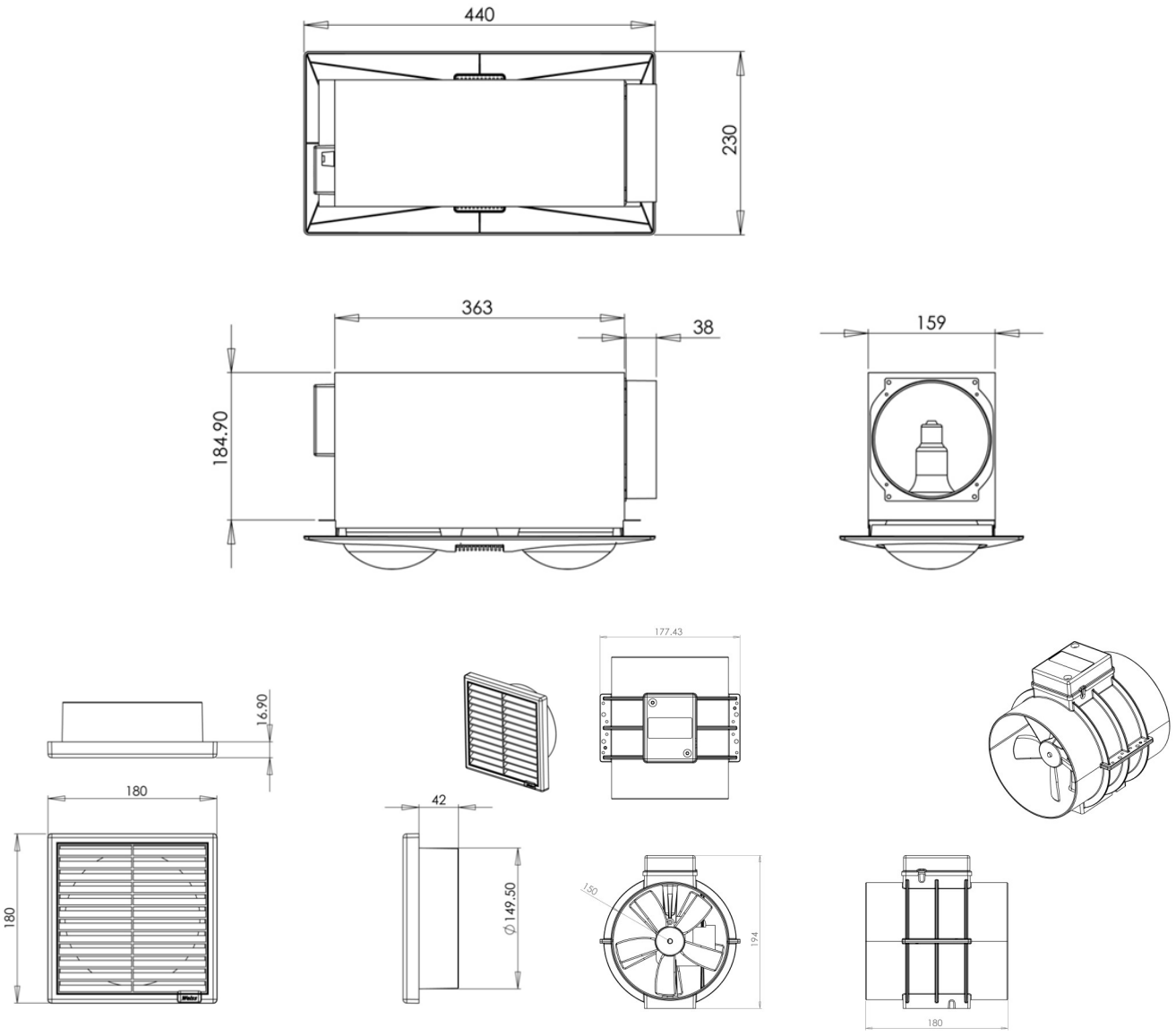
FH708LED

ClearGlow 4 in 1

White Fascia

Dimensions

Cut-out size for outlet vent	155mm
Cut-out size for main body	161mm x 364mm



Specifications

Weight	4.6 Kg
Colour of front fascia	White
Housing material	Sheet Steel
Fascia material	Flame retardant ABS

Approval

Test standards	AS/NZS 603350.2.80: 2004 Amdts 1 and 1:2011 Amdt.1
Test Report no	5772

Features

- Easy to install
- Powerful, yet quiet fan motor due to ceiling cavity installation
- 3 meters of 150mm diameter ducting included
- Rugged steel body
- 2 x 275 watt heat globes
- 1 x 5 watt LED light
- 3 way wall switch
- All parts are included
- 3 year extended warranty

Technical Data Sheet

Product Use

The FH708LED is used for the lighting and extraction of mist

Typical applications:
- Bathrooms

Environmental Conditions

Operation	to IEC 721-3-3
Climatic conditions	class 3K5
Temperature	0...+50°C
Humidity	<95% r.h.

Standards

Test standards	AS/NZS 603350.2.80: 2004 Amdts 1 and 1:2011 Amdt.1
Test Report no	5772
EMC Compliance	This is a Level One product with an C frame motor that has a very low risk of causing EMC Interference

General

Powerful inline fan with ducting extracts mist that can cause mould and dampness and expels it outside your home

Free air fan performance	420m³/hr 116.0L/sec
Installed Decibel rating	45 DB
Ceiling Insulation clearance	150mm from steel body on all sides, no insulation to cover body

Ordering

When ordering please give name and type,

Reference	FH708LED
Barcode	942000490254-3

Technical Data

Power Supply	230 VAC
Power consumption	max. 3 Amps
Supply Line fusing	max. 10A
Connection terminals	screw clamp terminals
For solid wires	2 x 1.5mm²
Motor	230-240VAC 50Hz 0,4Amp
Motor insulation class	B1
Total motor wattage	40 Watts
Motor protection	Thermally protected

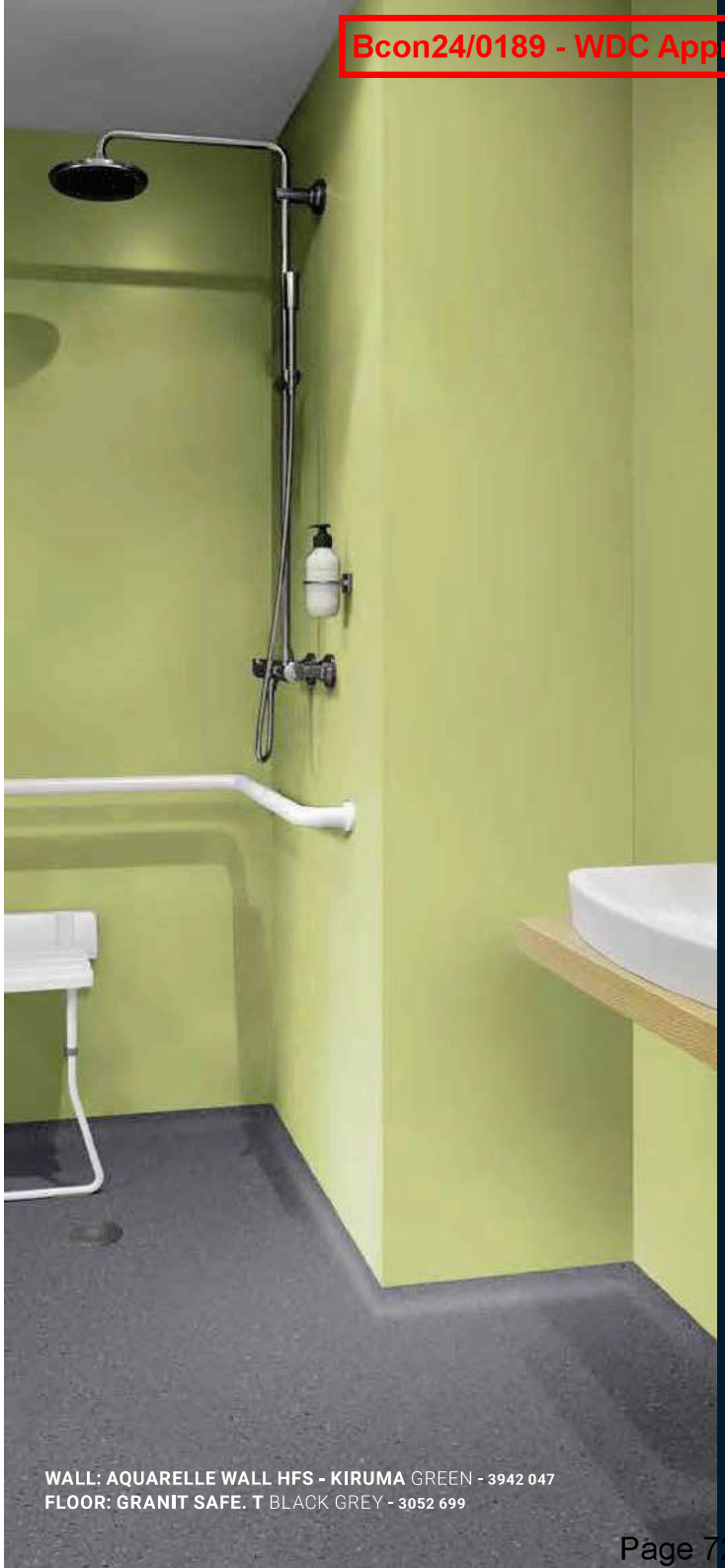
Wetroom Concept

WATERPROOF SYSTEM

Complete solution for Wetrooms

Tarkett

CONTENTS



WALL: AQUARELLE WALL HFS - KIRUMA GREEN - 3942 047
FLOOR: GRANIT SAFE. T BLACK GREY - 3052 699

A COMPLETE SOLUTION FOR WETROOMS

Tarkett wetroom concept offers you a complete and 100% water-resistant solution including walls, floors and accessories wherever you need it. A true specialized expert, Tarkett pioneered the wetroom concept over 35 years ago with over 1 million installations performed since then.

The Tarkett wetroom concept is designed to create a unique atmosphere in healthcare and aged-care facilities, but also in collective housings and hospitality applications.

More than **35 years** of experience

Full concept **100% water-resistant system** (walls, floors and accessories).

27 wall and 55 floor patterns to mix & match

Safe
Protection from slips and falls.
Class B & C slip resistance floors
(according to norm DIN 51097)

Healthier interior
contributes to optimal indoor air quality

100 % phthalate-free

<10 µg/m³ Optimal Indoor Air Quality *TVOC AT 28 DAYS

Hygienic and clean
Fewer joints, easy to cove & hot weld.

WALL: AQUARELLE WALL HFS - UNI DARK AQUA - 3942 082
AQUARELLE WALL HFS - JUNGLE GREY - 3942 081
FLOOR: MULTISAFE AQUA - STONE COLD GREY - 25910 001

DESIGNING A SAFE ANDCOMFORTABLEENVIRONMENT

Slip resistance | Visual comfort | Easy cleaning

Slip resistance

Our wetroom flooring solutions provide confident grip for bare feet and reduce the risk of slipping, even when covered in soap and water.

		BAREFOOT SLIP RESISTANCE (DIN 51097)	
	Anti-slip technology	Class B (shower room, changing room) angle >18°	Class C (constantly under water), angle >24°
GRANIT MULTISAFE	Studs		✔
GRANIT SAFE.T	Anti-slip particules	✔	
OPTIMA MULTISAFE	Studs	✔	
MULTISAFE AQUA	Specific embossing		✔

Healthier interior

contributes to optimal indoor air quality

100 % phthalate-free

<10 µg/m³ Optimal Indoor Air Quality *TVOC AT 28 DAYS

Hygienic and clean

Priority hygiene & effortless maintenance

- **Fewer joints**
- **Hot welded installation** from floor to wall
- **High flexibility** to cove corners
- **Resists stains**
- Easy to clean

Mix & match

27 wall and 55 floor patterns to mix & match

- Mix and match: floors & walls design possibilities are endless
- Coordinated design from the wetroom through adjoining rooms
- With colours matching with other Tarkett ranges (Platinium, Excellence, ProtectWall)

Exclusive designs that create unique environments.

WALL: AQUARELLE WALL HFS - **VOGUE** LIGHT WARM GREY - 3942 052
FLOOR: MULTISAFE AQUA - **CONCRETE** WARM GREY - 25910 008
EXCELLENCE - UNI DARK GREY - 25131 916

DESIGNING AN ENVIRONMENT FOR AGEING WELL

Many aged-care facilities today cater for people living with dementia alongside residents who face other age-related difficulties. It is therefore important to design aged care facilities with dementia in mind.
People with dementia typically experience memory problems, have difficulty processing information and are less able to communicate. The condition also impacts their perception of their surroundings, leaving them unable to relate what they see to physical reality or to perceive objects in three dimensions. These difficulties can generate stress and anxiety.
Ensuite shower room should be designed to promote a sense of wellbeing, encouraging dignity and familiarity, whilst observing independence and security

Create a home like feeling

Comfort is the key word when welcoming a person into their new home. Familiar designs with subtle patterns or textures will contribute to avoiding an institutional feeling. Particular attention should be paid to the choice of designs. Avoid busy patterns which may be misinterpreted and can cause anxiety for people living with dementia.

USE Plain patterns, material effects with subtle pattern

Stone
Warm Grey 3942 041

Granit Safe. T
Beige 3052 702

Avoid busy patterns, dark colours and high-contrast designs

Bubbles
Brownb 3942 061

Terrazzo
Green 25910 011

Dementia friendly designs* are flagged with: * on pages 8 to 15.

*Designs rated 1a-1b by University of Stirling's Dementia Services Development Centre (DSDC)
1a: Finishes within this rating are plain and can be used indiscriminately.
1b: Finishes within this rating are semi-plain (minimal texture or fleck and / or minimum contrast between fleck / pattern, wood effect with no knots) and in general, can be used throughout.

Use Light Reflection values (LRV) to create contrast

Use **strong contrast** between **floors and wall** and between **walls and sanitary equipment** to enhance visual perception:
LRV difference **> 30 points.**

Use **low contrast** for a smooth transition **from bedroom to the wetroom:**
LRV difference < 10 points.

Recommended floor and wall associations

Walls	Floors	Bedroom floor
Green Celadon 3942 076 **LRV = 67**	**Granito** Warm Grey 25910 009 **LRV = 37**	**Excellence Oak Longstripe** Natural 25127 002 **LRV = 30**
Vogue Light Beige 3942 054 **LRV = 56**	**Concrete** Warm Grey 25910 008 **LRV = 19**	**Excellence Brushed Oak** Medium 25132026 **LRV = 14**
Stone Medium Grey 3942 044 **LRV = 10**	**Granito** Cool Grey 25910 010 **LRV = 41**	**Excellence** Tissage Soft Light Blue 25128 130 **LRV = 33**

A COLLECTION
OF COLOURS

Aquarelle Wall HFS
Stone

orange
3942 048 LRV: 31.30%

Aquarelle Wall HFS
Uni

yellow
3942 027 LRV: 67.10%

Aquarelle Wall HFS
Bubbles

brown
3942 061 LRV: 24.90%

Aquarelle Wall HFS
Stone

light warm grey
3942 040 LRV: 73.80%

Multisafe Aqua
Fiber Wood

natural
C 25912 203 LRV: 37.77%

Granit Safe.T

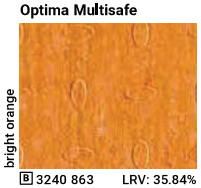
yellow
B 3052 703 LRV: 59.81%

Granit Multisafe

banana
C 3476 751 LRV: 59.81%

Granit Safe.T

yellow orange
B 3052 690 LRV: 56.37%

Optima Multisafe

bright orange
B 3240 863 LRV: 35.84%

Granit Multisafe

orange
C 3476 747 LRV: 35.84%

BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

Aquarelle Wall HFS
Brushed Metal

gold
3942 078 LRV: 26.00%

Aquarelle Wall HFS
Vogue

light beige
3942 054 LRV: 55.80%

Aquarelle Wall HFS
Marble

carrare
3942 079 LRV: 78.88%

Multisafe Aqua
Stone

light grege
C 25910 002 LRV: 24.20%

Optima Multisafe

grey beige
B 3240 860 LRV: 52.20%

Granit Multisafe

yellow beige
C 3476 744 LRV: 52.20%

Granit Safe.T

terracotta
B 3052 693 LRV: 31.53%

Granit Safe.T

medium grey beige
B 3052 692 LRV: 56.23%

BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

Aquarelle Wall HFS

Unl
super white
3942 037 LRV: 80.30%

Aquarelle Wall HFS

Graphic Lines
light
3942 058 LRV: 68.50%

Aquarelle Wall HFS

Unl
white
3942 034 LRV: 71.30%

Aquarelle Wall HFS

Graphic Lines
medium
3942 059 LRV: 39.50%

Multisafe Aqua

Fiber Wood
grege
C 25912 202 LRV: 27.53%

Granit Safe.T

light beige
B 3052 691 LRV: 71.32%

Granit Multisafe

light beige
C 3476 770 LRV: 71.32%

Optima Multisafe

grey beige
C 3240 820 LRV: 32.00%

Granit Safe.T

beige
B 3052 702 LRV: 41.32%

Granit Multisafe

beige
C 3476 743 LRV: 41.32%

BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

Aquarelle Wall HFS

Stone
warm grey
3942 041 LRV: 47.50%

Aquarelle Wall HFS

Vogue
light warm grey
3942 052 LRV: 47.70%

Aquarelle Wall HFS

Vogue
warm grey
3942 053 LRV: 30.10%

Aquarelle Wall HFS

Stone
dark warm grey
3942 042 LRV: 12.80%

Multisafe Aqua

Concrete
warm grey
C 25910 008 LRV: 18.80%

Granit Multisafe

grey beige
C 3476 745 LRV: 42.38%

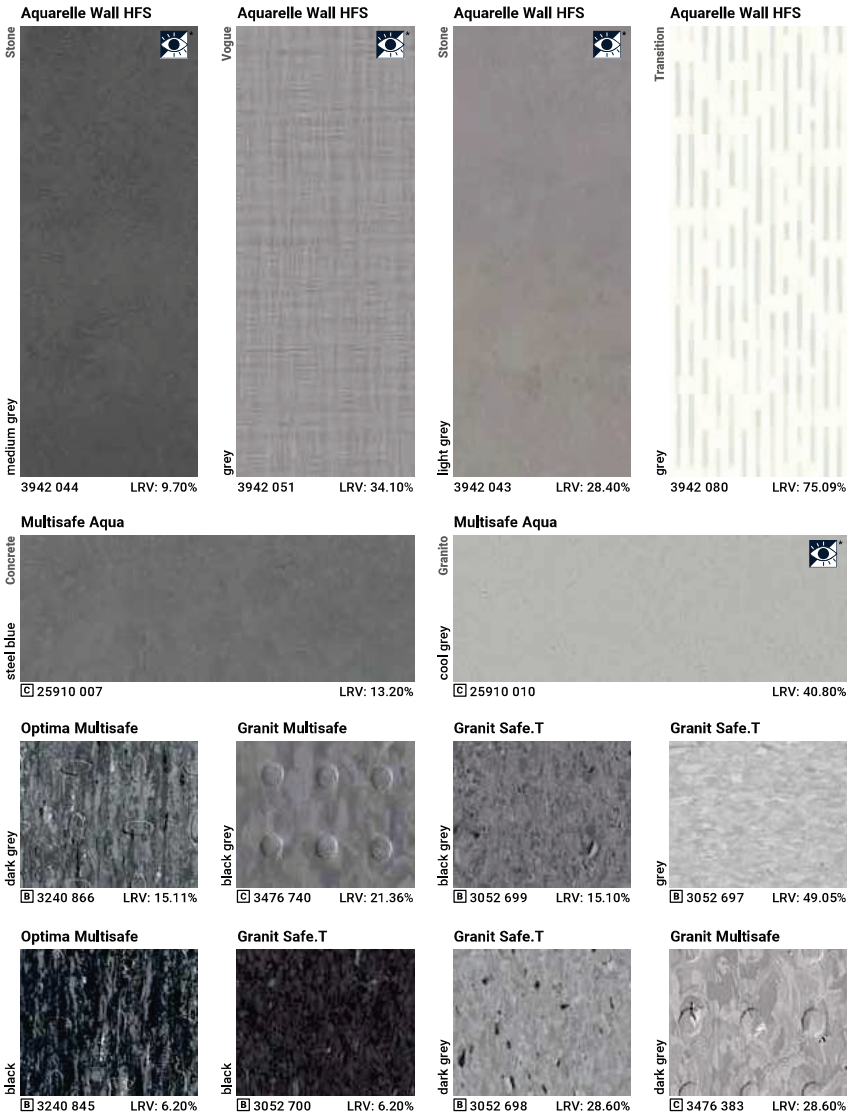
Granit Safe.T

medium cool beige
B 3052 704 LRV: 25.32%

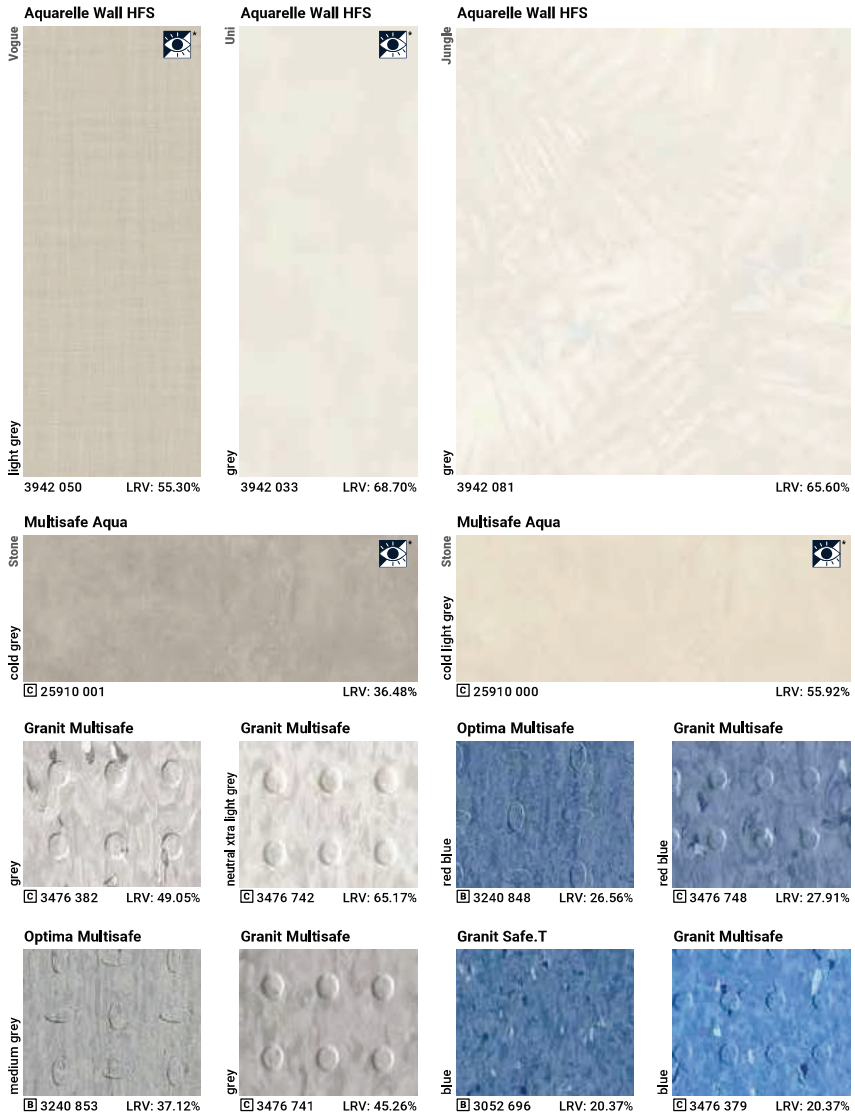
Granit Multisafe

medium cool beige
C 3476 746 LRV: 25.32%

BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

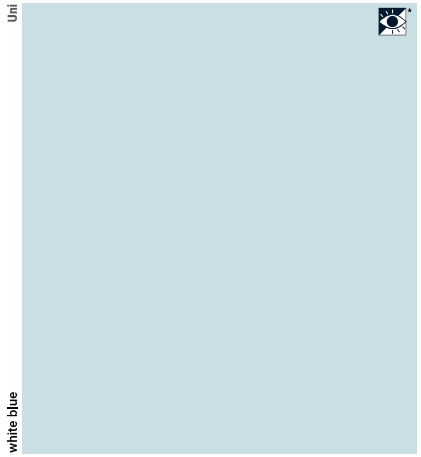


BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7



BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

Aquarelle Wall HFS



3942 077 LRV: 57.09%

Aquarelle Wall HFS

3942 057 LRV: 43.20%

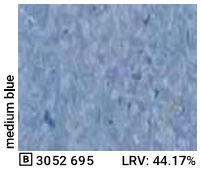
Aquarelle Wall HFS

3942 047 LRV: 50.40%

Granit Safe.T

B 3052 706 LRV: 40.24%

Granit Safe.T



B 3052 695 LRV: 44.17%

Granit Safe.T

B 3052 705 LRV: 48.05%

Granit Multisafe

C 3476 749 LRV: 40.24%

Granit Multisafe

C 3476 750 LRV: 48.05%

Optima Multisafe

B 3240 838 LRV: 44.09%

Optima Multisafe

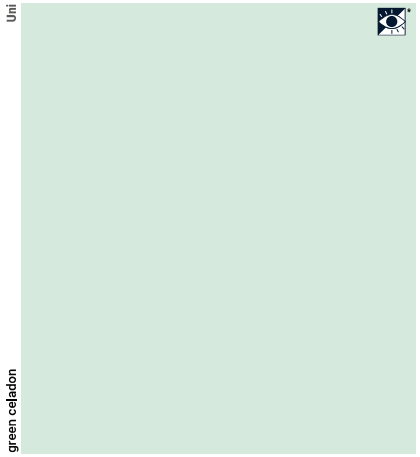
B 3240 861 LRV: 45.24%

Granit Safe.T

B 3052 694 LRV: 36.90%

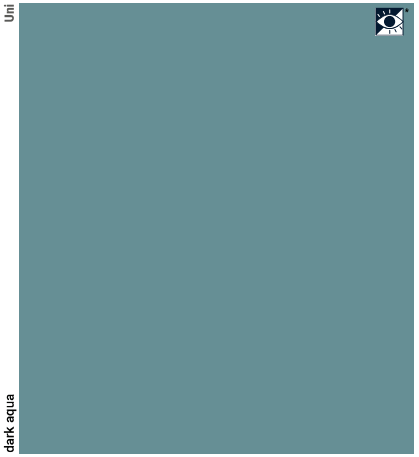
BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

Aquarelle Wall HFS



3942 076 LRV: 66.89%

Aquarelle Wall HFS

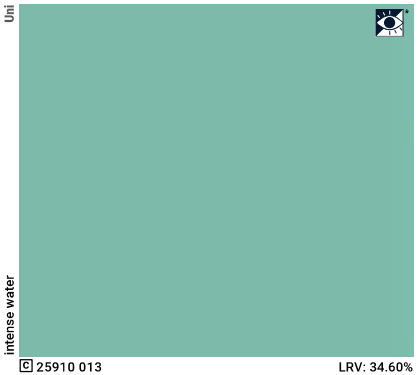


3942 082 LRV: 19.13%

Multisafe Aqua

C 25910 011 LRV: 39.60%

Multisafe Aqua

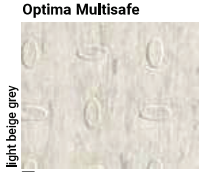


C 25910 013 LRV: 34.60%

Multisafe Aqua

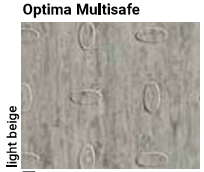
C 25910 009 LRV: 37.30%

Optima Multisafe



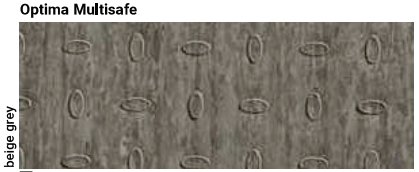
B 3240 886 LRV: 65.17%

Optima Multisafe



B 3240 873 LRV: 38.15%

Optima Multisafe



B 3240 874 LRV: 21.62%

BARE FOOT TEST: B Class B (18°) / C Class C (27°). Dementia friendly designs, see page 7

A LARGE RANGE OF ACCESSORIES
FOR AN ELEGANT FINISH

It's the accessories that can make all the difference with an elegant finish.

Tarkett provides a wide range of accessories to complete the Wetroom Concept.

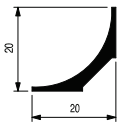
COVE FORMERS AND PROFILES

1 Cover formers PA15, PA20 & PA30

PA15
For added hygiene inside wall corners

PA20 & PA30
For added strength at the most vulnerable point between wall and floor

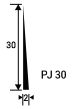
References
PA 15 (15x15 mm) / ref. 2661 7001
PA 20 (20x20 mm) / ref. 1441 000
PA 30 (30x30 mm) / ref. 1442 000



2 Flexible junction profiles PJ30 & PJ65

Designed to ensure a perfect watertight seal between coved floor covering and wall covering

References
PJ 30 (30 mm) / ref. 1418 001
PJ65 (65 mm) / ref. 2666 1001



3 Threshold transition RTS & PTS

- exists in flexible rubber version (RTS)
- exists in rigid PVC version (PTS)

References

RTS 
Available in one colour
Grey / ref. 1255 748

PTS 
Available in four colours
Grey / ref. 2666 4001
Dark grey / ref. 2666 4002
White / ref. 2666 4003
Beige / ref. 2666 4004

A RANGE OF ADAPTED DRAINS

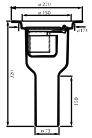
4 PVC and stainless steel drains and gratings

- Large selection of siphons
- Several models of PVC gratings
- Several models of INOX gratings

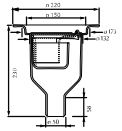
CLASSIC DRAINS

VERTICAL OUTLET Four models

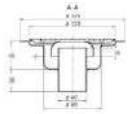
SIPHON PURUS BRAGE 75
ref. 1416 005 outflow 0.8L/s



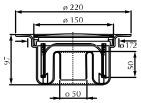
SIPHON PURUS BRAGE 50
ref. 1416 004 outflow 0.8L/s



SIPHON INOX 40*
ref. 1416 007 outflow 0.66L/s



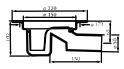
SIPHON PURUS DUSCHBRUNN 50
ref. 1416 001 outflow 0.8L/s



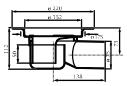
SAFE
ref. 1416 014 outflow 0.4L/s

HORIZONTAL OUTLET Three models

SIPHON PURUS FREJA 50
ref. 1416 002 outflow 0.8L/s

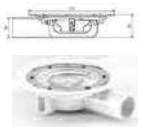


SIPHON PURUS ODEN 75
ref. 1416 003 outflow 0.8L/s



SIPHON MINIMAX
ref. 1416 006 outflow 0.8L/s

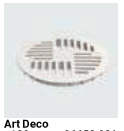
MINIMAX S-SERIE
ref. 1416 013 outflow 0.5L/s
(not recommended for connection of baths)



GRATINGS

PVC

Standard
ø150 1417 001



Art Deco
ø130 26658 001

Drop
Grating "Drop" with hole for pipe
ø150 26657 001

Hole for pipe
ø130 26659 001

Hole for pipe
ø150 26660 001

Grating S-Serie Minimax
ø179 26660 002

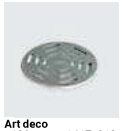
INOX

Wave
ø130 26653 001

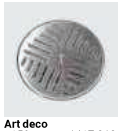
Wave
ø150 26652 001

Drop
ø130 26651 001

Drop
ø150 26650001



Art deco
ø130 1417 013



Art deco
ø150 1417 010

Grating S-Serie Minimax
ø179 26650 002

PURUS ITEMS

Brage/Oden water trap
1417 005

Freja water trap
1417 007

Locking set
1417 006

Duschbrunn water trap
1417 008

Support
1417 004

Purus knife
1417 003
Extra blades for Purus knife (x5) 1417 016
Purus Safe knife
1417 023

Clamping ring: 150mm
1417 002

A RANGE
OF ADAPTED DRAINS

RECTANGULARDRAINS

Dimensions
Lenght: 600, 900mm
Width: 130mm

Note that the height depends on which gully you choose

Bottom outlet

Side low outlet

Side outlet

TARKETT MATERIAL DESCRIPTION	
26687101	Siphon Vinyl Plus Chess Ø50 side 600mm
26691101	Siphon Vinyl Plus Chess Ø50 side low 600mm
26689101	Siphon Vinyl Plus Chess Ø75 side 600mm
26688101	Siphon Vinyl Plus Chess Ø75 bottom 600mm
26693101	Siphon Vinyl Plus Chess Ø50 side 900mm
26697101	Siphon Vinyl Plus Chess Ø50 side low 900mm
26695101	Siphon Vinyl Plus Chess Ø75 side 900mm
26694101	Siphon Vinyl Plus Chess Ø75 bottom 900mm

WATERPROOF
PIPE COLLARS

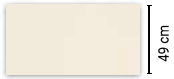
Offer an efficient way to achieve a watertight finish for small diameter pipework in a variety of sizes

STOSETT LOW TOP MEMBRANE		
Diameter*	Reference	Packaging
8 - 12 mm	1420 001	24 sleeves + 12 clamps
11 - 15 mm	1420 002	24 sleeves + 12 clamps
15 - 19 mm	1420 003	24 sleeves + 12 clamps
18 - 22 mm	1420 004	24 sleeves + 12 clamps
21 - 26 mm	1420 005	24 sleeves + 12 clamps
26 - 31 mm	1420 006	24 sleeves + 12 clamps
30 - 35 mm	1420 007	24 sleeves + 12 clamps
35 - 42 mm	1420 008	6 sleeves + 3 clamps
100 - 127 mm	1420 009	1 sleeve
Adhesive for Stosett	1460 100	1 tube = 160 ml

* The first figure indicates the diameter of the upper part; the second indicates the diameter at the groove.

WALL
BORDERS

2590 0034 White
Thickness: 0.92 mm
Roll length: 30 - 35 lm



2590 0037 Extra white
Thickness: 0.92 mm
Roll length: 30 - 35 lm

WELDING
RODS

Plain and multicolour welding rods to complement chosen floor coverings. Please refer to chart on page 30 for more details.

WETROOM CONCEPT
INSTALLATION PROCESS

This section of the brochure gives you a step-by-step installation guide for the Wetroom Concept including floors, walls and main accessories.

WALL COVERING INSTALLATION p 24

DRAIN INSTALLATTION p 20

FLOOR COVERING INSTALLATION p 20

FLOOR COVERING
INSTALLATION

DRAIN INSTALLATION

The drain should be installed by a qualified plumber as part of the wetroom installation and according to the instructions provided with the drain and the recommended installation standards.

FLOOR COVERING INSTALLATION (11 STEPS)

The Wetroom Concept includes 3 types of homogeneous vinyl flooring:

- Multisafe Granit
- Granit Safe. T
- Multisafe Optima

One type of heterogeneous vinyl flooring:

- Multisafe Aqua

The subfloor must be smooth, level, clean, dry, structurally sound, moderately absorbent and not exposed to high humidity. The preparation / dryness of the subfloor and installation procedures should all be as per the current relevant building standards within the country of use.

INSTALLATION STANDARDS

The floor must have a ≥ 1% slope towards the drain.

Where the design does not include screens or other barriers to contain the water, the sloped area should include the entire zone exposed to water, that is at least 1.8 meters from the shower attachment and the drain.

Fixed or mobile, vertical screen(s) at least 1.8 meters high can be used to contain spray from the shower. In this case, the sloped area should include:

- The entire shower zone inside vertical screen(s).
- All unprotected areas exposed to water, that is at least 1.8 meters from the shower attachment and the drain.

The drain must be 30 cm from the walls.

The pipework should not diminish the integrity of the floor covering. A suitable casing (or STOSSET collars for renovations) should be provided if this is not possible.

Please see page 18 for STOSSET details.

1 PREPARING THE SUBFLOOR

The PVC flooring requires a subfloor with a minimum slope of 1 cm per meter.

Check the subfloor for humidity level, surface cohesion, porosity, flatness, curing compound, and cracks.

When a floor covering is used with a traditional mortar or concrete floor, the humidity content must not be over 4.5%, using a calcium chloride test kit to a minimum depth of 4 cm.

Where micro cracks ≤ 0.3 mm exist, use a primer recommended by the manufacturer before applying the screed.

There should be no expansion joints in the area.

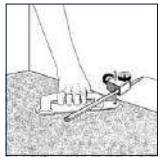
2 GLUING THE COVE FORMERS

Apply cove former around the entire edge of the room, double gluing with or using an appropriate dry tape and scribe the edges around the doorframe.

3 INSTALLING THE FLOOR COVERING

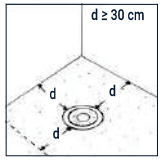
Measure the sections of floor covering taking care to include enough material to cover the cove formers. 24 hours before installation, cut the appropriate lengths and store at a minimum ambient temperature of 15°C. During gluing, the sub floor temperature must be ≥ +12°C.

4 TRACING THE COVING



Use a scriber (Refer to code 11, p. 23) to mark all round the walls to a minimum height of 10 cm or 13 to have 7cm or 10cm coving.

5 MARKING UP THE SECTIONS



The drain must be located a minimum of 30 cm from the walls and should be installed by a plumber in accordance with Tarkett and Purus technical specifications and in accordance with the local standards.

Sections reversed: all welded joints must be at least 30 cm from the drain.

6 INSTALLATION

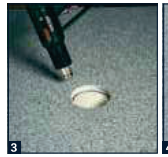
Lift the part of flooring that covers the drain and install the base (foot) of the PURUS knife (see p. 17) in the gully.

Apply an acrylic adhesive recommended by Tarkett to the subfloor using a TKB A2 fine-toothed spatula (about 300g/m²). Allow the glue to become tacky and then position the floor covering section or sections. Rub down carefully. Repeat with the other pieces.

Do not apply adhesive over the drain.


7 INSTALLING THE DRAINCLAMPING RING

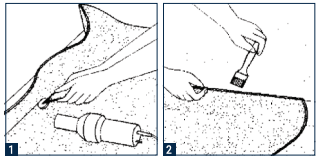
1 When the floor covering is in place, press it down until it is perforated by the pivot of the PURUS knife (see p. 13). Attach the arm of the knife and cut the hole in the vinyl.
2 Remove the cutter.
3 Use a hot air gun (Refer to code 1, p. 23) to heat the floor covering so that the flooring can be positioned properly in the drain.
4 Place the clamping ring (blue) on the floor covering and push to fix in the drain.
Put the protective grating in place (filter).



8 COVING

1 Use a corner roller (Refer to code 2, p. 23) and hot air gun (Refer to code 1, p. 23) to make sure that the floor covering is smooth and pushed well into the floor/wall angle.
Cove the flooring by double gluing the subfloor and the back of the floor covering, applying an acrylic double contact adhesive with a spatula or use an appropriate dry tape. Carefully follow the safety requirements for this type of glue and observe the tack time.

2 Once the glue has become tacky to the touch, fold the floor covering onto the wall.

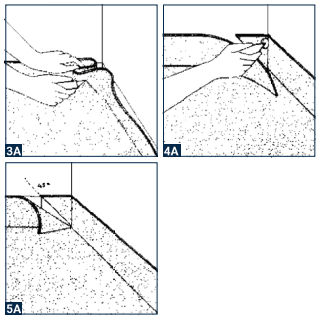


INSIDE CORNER (A)

3A Trim the excess material starting in a corner 5mm from the floor.

4A Use the corner roller (Refer to code 2, p. 23) to apply the floor covering in the corner.

5A Make a 45° cut using a set square or angle (Refer to code 10, p. 23).
Trim the coving to 10cm or 13cm to have 7cm or 10cm coving using a combined scriber/ mixed marking gauge (Refer to code 11, p. 23) or a suitable rule and cutting tool.

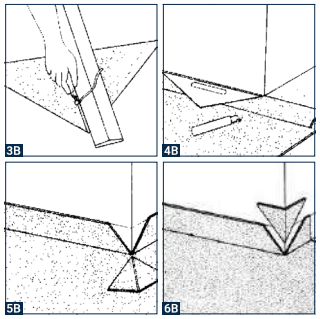


OUTSIDE CORNER (B)

3B Cut out a triangular section from the floor covering at 45° either side of the corner using an angle (Refer to code 10, p. 23) if required.

4B The triangle must finish 5mm from the floor.

5B 6B Adjust the size of the cutaway piece, cut a groove into the back and apply glue to the before applying to the corner space.

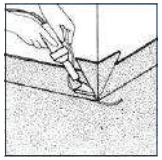


9 HOT WELDING

We recommend leaving the floor for 24-48 hours after installation before welding.

1 Welding the coving. Scribe the cuts and joints using a hand groover or adjustable groover (Refer to code 3, p. 23). T

2 Use welding rods to weld the floor joint(s). Use a speed nozzle (Refer to code 5, p. 23) and trim the welding rod with a tool designed for studded flooring (Refer to code 9, p. 23).

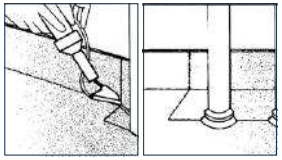


10 INSTALLING STOSETT WATERPROOF PIPE COLLAR

Wherever possible the project design should maintain flooring integrity by grouping vertical outlets in a pipe or casing along the partition.

A watertight finish is always possible for small diameter piping providing that: there is sufficient space (5 cm between and behind the pipes); special protection using collars after the floor covering has been installed.

Before installing the collar, the cuts (floor and wall) should be hot welded and the area around the pipes trimmed (depending on the STOSSET collar diameter).



The following diagrams show the different stages:

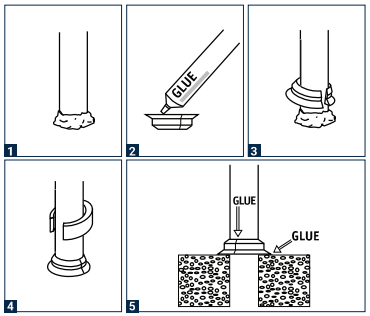
1 Remove the RADONIX membrane at the base of the pipe work.

2 After cutting the collar, apply the adhesive (or liquid solder cold welding such as Werner Muller) around the base.

3 Position the collar and glue the joint (Werner Müller).

4 Adjust the clamping ring to keep the collar in place while the liquid solder dries.

5 Remove the ring.



STOSETT LOW TOP MEMBRANE		
Diameter*	Reference	Packaging
8 - 12 mm	1420 001	24 sleeves + 12 clamps
11 - 15 mm	1420 002	24 sleeves + 12 clamps
15 - 19 mm	1420 003	24 sleeves + 12 clamps
18 - 22 mm	1420 004	24 sleeves + 12 clamps
21 - 26 mm	1420 005	24 sleeves + 12 clamps
26 - 31 mm	1420 006	24 sleeves + 12 clamps
30 - 35 mm	1420 007	24 sleeves + 12 clamps
35 - 42 mm	1420 008	6 sleeves + 3 clamps
100 - 127 mm	1420 009	1 sleeve
Adhesive for Stosett	1460 010	1 tube = 160 ml

* The first figure indicates the diameter of the upper part; the second indicates the diameter at the groove.

NOTE

If there is no equivalent collar for unusual diameter pipework, create one from the floor covering (welded to the base and vertically at the junction) or use a suitable caulking mastic (polyurethane or MS polymer, ref. Bostik MS 107).

11 INSTALLING EQUIPMENT (AFTER COMPLETION)

Our 10-year floor and wall guarantee only covers attachments for accessories and sanitary equipment (required for the plumbing) if suitable fixings are used. Screws must only be used with watertight chemical rawlplugs or rawlplugs with a suitable waterproof mastic (polyurethane or MS polymer, ref. Bostik MS 107).

Waterproof mastic must also be applied where surfaces meet, in particular: basin, lavatory, wall-mounted flush, grab rail, trap, etc.

Example: to install a lavatory (preferably with wall-mounted flush) follow the instructions above and before putting it into place also apply waterproof mastic where it will meet the wall.

The supporting framework and partition must be sufficiently rigid to prevent movement when the lavatory is used, which could damage the wall covering.

WALL COVERING INSTALLATION

WALL COVERING INSTALLATION (8 STEPS)

1 PREPARING THE WALLS/SUBSTRATE

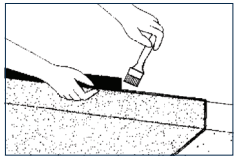
It must be flat, solid, sound, dry, clean, normally absorbent and also crack-free.
Any old coverings must be removed first.
Apply a primer suitable for the material and then the glue (never use paint even diluted).
Incoming and outgoing pipes should have a maximum diameter of 5 cm.
A 5 cm gap must be left between the pipework and the wall to leave room to hang Aquarelle Wall HFS.

2 PREPARING THE WALL COVERING

Precut 24 hours before gluing and keep at a minimum ambient temperature of + 15°C.

3 INSTALLING THE FLOOR/ WALL TRANSITION STRIP (REF. PJ 30 & PJ 65)

Apply a PJ 30 transition strip to compensate for the thickness of the coving, double gluing with an acrylic double contact adhesive with a spatula or use an appropriate dry tape. It is also possible to apply a wall leveling compound instead of the PJ30.



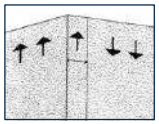
4 INSTALLING THE WALL COVERING

The wall covering should be installed so that the joints are as far away from the wet zone as possible and at least 10 cm from a corner. Joints should never be made in a corner. Measurements should include a minimum extra 3 cm to overlap the coving.

Before installing the wall covering, remove the studs with a quarter moon knife. This allows a smoother finish when creating the coving up and overlapping wall covering over the floor covering by 3 cm.

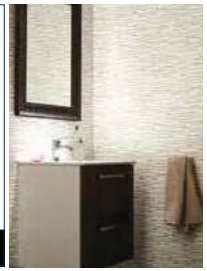
VERTICAL INSTALLATION

Position the sheets vertically to room height (reversed when necessary).



HORIZONTAL INSTALLATION

Aquarelle Wall HFS can be installed horizontally, but a Wall Border (49 cm width) must be used to ensure that the full height of the room is watertight. The Border should be applied once the Aquarelle Wall HFS wall covering is in place, and should overlap the upper edge by at least 2 cm (only use acrylic adhesive). The Wall Border frieze is positioned on the bottom edge for the best visual effect.



Wall borders

2590 0034 White
Thickness: 0.92 mm
Roll length: 30 – 35 lm

2590 0037 Extra white
Thickness: 0.92 mm
Roll length: 30 – 35 lm

5 GLUING

Take the full width of a floor covering section and mark a plumb line on the wall from ceiling to coving. Use a fine-toothed spatula TKB A4 (200/250 g/m²) to coat the defined area with an acrylic adhesive recommended by Tarkett.

Wait the appropriate tack time for the glue and then line up the first section with the plumb line and press in to place using a cork wedge (Refer to code 14, p. 23) and pushing air bubbles from top to bottom and centre to edges.

Glue the next area and hang the second section of wall covering (reversed when necessary) and either position tightly edge-to-edge with the first (make sure that the edges are in good condition) or overlapping the edges by around 3 cm. If you overlap the sheets, cut the joint using a hot air gun (Refer to code 1, p. 23) and a straight blade, or a combined scriber/marking gauge (Refer to code 1, p. 23).

INSIDE CORNER

To work round a corner, hang the wall covering up to the corner and fold it back on itself. Create a fold against the corner the full height of the sheet and then use and angle roller (Refer to code 2, p. 23) and taking care to press each side of the corner starting from the bottom. If the corner of the substrate isn't straight, cut the wall covering vertically at least 10 cm from the corner and continue with the next section.

OUTSIDE CORNER

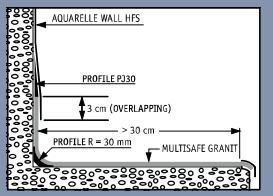
Double glue an area 5 cm from each side of the edge using an acrylic double contact adhesive with a spatula or use an appropriate dry tape. Press the wall covering in to place on one side up to the corner. Use a hot air gun (Refer to code 1, p. 23) and bend the wall covering around the corner, pressing into the angle with a cloth and outside corner roller. If the substrate corner is not straight, cut the wall covering plumb 10 cm from the corner and continue with the next sheet.

6 COVERING THE COVING

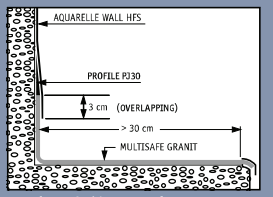
Trim off the Aquarelle Wall HFS wall covering at 7cm or 10cm from the floor (a 3 cm overlap with the coving) using a combined scriber/marking gauge (Refer to code 11, p. 23).

NOTE

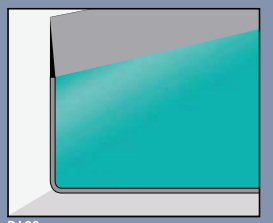
Excess material in the corner can be incorporated by using a hot air gun (Refer to code 1, p. 23) and corner roller (Refer to code 2, p. 23).



With cove former



Heat formed without cove former



PJ 30

7 HOT WELDING THE JOINTS

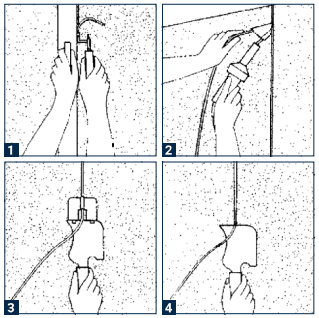
Leave for 24-48 hours before hot welding the joints using welding rods as follows:

- Temperature of the substrate ≥ +12°C, ambient temperature ≥ +15°C

1 Open the joint using a grooving tool (Refer to code 3, p. 23) and a rule for support (Refer to code 4, p. 23).

2 Use the speed welding nozzle (Refer to code 5, p. 23) and work from top to bottom.

3 & 4 Use the Mozart knife (Refer to code 16, p. 23) or a quarter moon knife (Refer to code 6, p. 23) to trim in two stages, pre-trimming using an adjustable trimmer (Refer to code 7, p. 23) and finish with the quarter moon knife (Refer to code 6, p. 23).



8 CAULKING

Once the floor and wall coverings are in place, waterproof the joints around the door frame (windows, frames, ceiling etc.) using a mastic designed for this purpose (polyurethane or MS polymer, Ref. Bostik MS 107). Do the same for any fixtures installed after the Aquarelle Wall HFS wall covering.

9 CONNECTING TO A DRY ROOM

In general: hot weld the floor covering to the flooring used in the adjacent room.

WETROOM THRESHOLD TRANSITION STRIP

Tarkett offers 2 types of threshold transition strips for use with the Wetroom concept.

RTS: Rubber threshold strip
› made from 10 cm wide grey rubber with a central air pocket that stops water and flattens easily under foot or wheels
› available in 20 ml reels
› fixed into place with a polyurethane adhesive and the floor coverings glued on to the 1 cm strip on either side using an acrylic adhesive

PTS: PVC threshold strip
› made from 9 cm wide solid pvc
› available in 4 colours
› available in 10 strips of 3 lm in a box
› may be hot welded with a welding rod for perfect water tightness
› fixed into place adhesive with a polyurethane adhesive and the floor coverings glued on to the 1 cm strip on either side using an acrylic adhesive

TOOLS REQUIRED

CODE	TYPE OF TOOL	FLOOR	WALL	JANSER	ROMUS
1	Hot air gun	X	X	226 110 000	95 047
2	Corner roller	X	X	224 400 123	95 135
3	Wall groover or adjustable groover		X		95 125
4	Guide rule		X	262 601 000	91 580
5	High speed hot air nozzle -	X	X	224 700 300	95 030
5	High speed nozzle	X	X	224 400 300	
5	Tarkett super high speed welding nozzle (Ref. 1258 012)		X		
6	Quarter moon knife	X	X	262 621 000	95 140
7	Adjustable trimmer	X	X	262 625 000	95 150
8	Traditional blowtorch	X	X	224 962 000	95 074
8	("welder")	X	X	224 818 000	95 080
9	or special wall seam plane (studded flooring)	X	X	262 626 500	95 172
9	or trimming tool slim		X	262 609 100	
9	or "slim" or "trim" trimmer		X	262 609 300	
10	90° angle template	X			95 445
10	and flat angle template for coving	X			95 446
11	Scriber or		X	222 430 000	95 430
11	combined scriber/marking gauge		X	262 130 000	
12	Swan neck nozzle or	X		224 810 040	95 039
12	Corner finishing nozzle	X		224 810 050	
13	Trimming gouge	X		262 610 000	95 160
14	cork wedge/squeegee	X	X	262 380 000	93 145
15	stainless steel trowel		X		93 150
16	Mozart knife	X	XX	262 636 000	95 130

RECOMMENDED ADHESIVES

Tarkett regularly test the main adhesives on the market to check that they are compatible with its products. The manufacturer is responsible for the quality of the adhesives and the installer for their use according to the manufacturer's instructions.

Acrylic adhesive should be applied using a fine toothed spatula TKB A4 (d.p.t 200 . 250 g/m²) for Aquarelle Wall HFS and TKB A2 (d.p.t environ 300 g/m²) for Multisafe Granit, Granit Safe. T and Multisafe Optima. Consideration should be given to the local climate in relation to tack time, drying etc.

TECHNICAL ASSISTANCE

If your business does not yet have experience in installing the Wetroom Concept please contact your local Tarkett sales office for advice and assistance.

PRODUCT DESCRIPTION

MULTISAFE OPTIMA

■ Is a studded homogeneous PVC flooring available in 2 m widths, 2 mm thick + 0.25 mm studs. It has slip resistance B as determined by bare feet on an angled ramp (angle ≥ 18° according to standard DIN 51097). This flooring does not contribute to infection spreading. It has a 0.03 mm wear layer (NF eN 433).

■ Is 100 % recyclable and comes with a 10-year Guarantee. Emissions of volatile organic compounds (VOC) are lower than 10 µg/m³ (tVoc after 28 days).

GRANIT MULTISAFE

■ Is a studded homogeneous PVC flooring available in 2 m widths, 2 mm thick + 0.5 mm studs. It has slip resistance C as determined by bare feet on an angled ramp (angle ≥ 18° according to standard DIN 51097). This flooring does not contribute to infection spreading. It has a 0.03 mm wear layer (according to NF EN 433).

■ Is 100 % recyclable and comes with a 10-year Guarantee. Emissions of volatile organic compounds (VOC) are lower than 10 µg/m³ (tVoc after 28 days).

MULTISAFE AQUA

■ Is a slip resistant heterogeneous vinyl flooring available in 2m width, 2mm thick. It has slip resistance Class C as determined by bare feet on an angled ramp (angle ≥24° according to standard DIN 51097). The surface is strengthened and made easier to maintain by TopClean XP polyruethane surface treatment.

■ Is 100% recyclable and comes with a 10-year guarantee. Emissions of volatile organic compounds (VOC) are lower than 10µg/m³ (TVOC after 28 days).

GRANIT SAFE.T

■ Is a slip resistant homogeneous PVC flooring available in 2 m widths, 2 mm thick. It has slip resistance class B as determined by bare feet on an angled ramp (angle ≥ 18° according to standard DIN 51097). The surface is strengthened and made easier to maintain by Safety Clean XP, a photoreticulated polyurethane treatment. This flooring does not contribute to infection spreading. It has a 0.03 mm wear layer (NF eN 433).

■ Is 100 % recyclable and comes with a 10-year Guarantee. Emissions of volatile organic compounds (VOC) are lower than 10 µg/m³ (tVoc after 28 days).

AQUARELLE WALL HFS

■ Is a PVC wall covering especially suitable for use in wet areas. This flooring does not contribute to infection spreading. It is available in 2 m widths and is 0.92 mm thick.

WALL BORDER

■ The PVC wall border is especially suitable for use in wet areas. It helps preventing infection spreading. It comes in lengths 0.49 m x 30 ml and is 0.92 mm thick.

TARKOMOUSSE

■ Is a glass fibre reinforced PVC underlay with a foam underside. Used with a floor covering, it offers acoustic reductions of 19 dB with Multisafe Granit and 17 db with Granit Safe.T and Multisafe Aqua (Technical data and installation instructions are available upon request). It comes in 2 meter widths.

TECHNICAL DATA

TECHNICAL DATA	STANDARD	AQUARELLE WALL HFS	GRANIT MULTISAFE	OPTIMA MULTISAFE	GRANIT SAFE.T	MULTISAFE AQUA
CLASSIFICATION						
Classification	EN 233	Homogeneous vinyl compact wall covering	-	-	-	-
	EN 649	-	Homogeneous single layered vinyl flooring with studded surface	Homogeneous vinyl flooring with studded surface	-	-
	ISO 10582	-	-	-	-	Heterogeneous vinyl floor covering
	EN 13845	-	-	-	Slip resistant homogeneous vinyl flooring	-
	EN ISO 10874	-	Commercial: 31	Commercial: 31	Commercial: 34 / Industrial: 43	Commercial: 33 / Industrial: 42
Wear layer binder content	EN ISO 10581	-	Type I	Type I	-	Type I
TECHNICAL CHARACTERISTICS						
Total thickness	EN ISO 24346	0.92 mm	2.5 mm	2.25 mm	2.0 mm	0.55 mm
Total weight	EN ISO 23997	1500 g/m²	3010 g/m²	2820 g/m²	2950 g/m²	3100 g/m²
Wear layer thickness	EN ISO 24340	0.12 mm	2.0 mm	2.0 mm	2.0 mm	2.0 mm
Surface treatment	EN ISO 24340	-	-	-	Safe.T Clean XP*	Top Clean XP*
Form of delivery	EN ISO 24341 Sheet (rolls)	Rolls: 35 lm x 2 m Borders: 49 cm x 30-35 m	25 lm x 2 m	25 lm x 2 m	25 lm x 2 m	20 lm x 2 m
PERFORMANCES FOR CE MARKING REQUIREMENTS (EN 14041)						
Declaration of Performance	EN 14041	0131-0032-DoP-2013-07	0019-0034-DoP-2013-07	0019-0036-DoP-2013-07	0019-0006-DoP-2013-07	0120-0054-DoP-2014-05
Reaction to fire	EN 13501-1	B-s2,d0 on any non-metal A1 or A2-s1,d0 class substrate	Class Bfl-s1	Class Bfl-s1	Class Bfl-s1	Bfl-s1 glued over any A2fl or A1fl substrate (on cement) Cfl-s1 glued over any derivative wood substrate
	EN 13501-1 EN ISO 11925-2	- -	≥ 8 kW/m² Pass	≥ 8 kW/m² Pass	≥ 8 kW/m² Pass	- -
Marine equipment	IMO FTPS Part 5 and 2 IMO Res. A653	- -	0575	- -	- -	- -
Static electrical discharge	EN 1815	-	< 2 kV	< 2 kV	< 2 kV	< 2 kV Antistatic on concrete
Thermal resistance	EN 12667	-	Approx. 0.01 m² K/W	Approx. 0.01 m² K/W	Approx. 0.01 m² K/W	Approx. 0.02 m² K/W
Slip resistance	EN 13893	-	µ ≥ 0.3	µ ≥ 0.3	µ ≥ 0.3	µ ≥ 0.3
TECHNICAL PERFORMANCES						
Residual indentation	EN ISO 24343-1	- -	Required value: ≤ 0.10 mm Average measured value*: 0.02 mm	Required value: ≤ 0.10 mm Average measured value*: 0.02 mm	Required value: ≤ 0.10 mm Average measured value*: 0.02 mm	Required value: ≤ 0.10 mm Average measured value*: 0.03 mm
Slip resistance	DIN 51130	-	R10	R10	R10	R10
Bare foot test	DIN 51097	-	Class C (27°)	Class B (18°)	Class B (18°)	Class C (27°)
Curl resistance to heat	EN ISO 23999	-	Yes	Yes	Yes	≤ 8mm
Castor chair test	ISO 4918	-	-	-	Suitable	No dommage (25000 cycles)
Light fastness	EN ISO 105-B02	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6
Chemical resistance	EN ISO 26987	Good	Good	Good	Good	Good
Electrical resistance	EN 1081	-	approx. 10¹⁰ Ohm	approx. 10¹⁰ Ohm	-	-
Bacteria resistance	ISO 846 Part C	-	Does not favour growth	Does not favour growth	Does not favour growth	-
Underfloor heating		-	Suitable - max. 27°C	Suitable - max. 27°C	Suitable - max. 27°C	Suitable - max. 27°C
Seam strength	EN 684	≥ 150 N/50 mm -	Average value: ≥ 240 N / 50 mm Individual values: ≥ 180 N / 50 mm	Average value: ≥ 240 N / 50 mm Individual values: ≥ 180 N / 50 mm	Average value: ≥ 240 N / 50 mm Individual values: ≥ 180 N / 50 mm	Average value: ≥ 240 N / 50 mm -
ENVIRONMENTAL PERFORMANCES						
Total VOC emissions	ISO 16000-9	≤ 10 µg/m³ (after 28 days)	≤ 10 µg/m³ (after 28 days)	≤ 10 µg/m³ (after 28 days)	≤ 10 µg/m³ (after 28 days)	≤ 10 µg/m³ (after 28 days)
COLOURS						
		27	16	12	16	11

The above information is subject to modification for the benefit of further improvement. (05/19). *For information - not binding.
According to the European Regulation N° 305/2011 for CE Marking, the Declarations of Performance are available on our website www.tarkett.com
Tarkett's instructions regarding installation, cleaning and maintenance should be observed. Please contact Tarkett at the address shown for these instructions.

REFERENCE CODES

REFERENCES	PLAIN WELDINGRODS	MULTICOLOUR WELDING RODS	NCS	LUMINOUS REFLECTANCE VALUES
GRANIT MULTISAFE				
3476 379	1292379	1290041	S 4030-R90B	20.37 %
3476 382	1292 811	1290 028	NCS S 2502-B	49.05%
3476 383	1292 383	1290 021	NCS S 4502-B	28.60%
3476 740	1291542	1290149	S 5502-B	21.36 %
3476 741	1287255	1290150	S 3000-N	45.26 %
3476 742	1287446	1290151	S 1500-N	65.17 %
3476 743	1287391	1290143	S 3010 Y30R	41.32 %
3476 744	1287039	1290147	S 2010-Y20R	52.20 %
3476 745	1287178	1290146	S 3005-Y20R	42.38 %
3476 746	1287537	1290144	S 5005-Y20R	25.32 %
3476 747	1287519	1290148	S 2050-Y40R	35.84 %
3476 748	1287514	1290112	S 3030-R90B	27.91 %
3476 749	1287509	1290107	S 2030 B10G	40.24 %
3476 750	1287518	1290116	S 2030-G50Y	48.05 %
3476 751	1287298	1290070	S 1040-Y20R	59.81 %
3476 770	1288 255	1290 036	NCS S 1005-Y40R	71.32%
OPTIMA MULTISAFE				
3240 820	1287501	1290099	S 4010-Y30R	32.00 %
3240 838	1287509	1290107	S 2020-B10G	44.09 %
3240 845	1291845	1290034	S 8502-B	6.20 %
3240 848	1287514	1290112	S 3030-R80B	26.56 %
3240 853	1292388	1290022	S 3502-B	37.12 %
3240 860	1287039	1290066	S 2010-Y20R	52.20 %
3240 861	1287518	1290116	S 2040-G60Y	45.24 %
3240 863	1287519	1290117	S 2050-Y40R	35.84 %
3240 866	1291216	1290026	S 6502-B	15.11 %
3240 873	1287524	1290122	S 3502-Y	38.15 %
3240 874	1287525	1290123	S 5502-Y	21.62 %
3240 886	1291609	1290049	S 1500-N	65.17 %
GRANIT SAFE.T				
3052 690	1287249	1290056	S 1040-Y30R	56.37 %
3052 691	1288255	1290036	S 1005-Y40R	71.32 %
3052 692	1287407	1290023	S 2010-Y30R	56.23 %
3052 693	1292375	1290046	S 3030-Y50R	31.53 %
3052 694	1287332	1290059	S 3020-G30Y	36.90 %
3052 695	1291210	1290038	S 2020-R90B	44.17 %
3052 696	1292379	1290041	S 4030-R90B	20.37 %
3052 697	1291811	1290028	S 2502-B	49.05 %
3052 698	1292383	1290021	S 4502-B	28.60 %
3052 699	1299327	1290027	S 6502-B	15.10 %
3052 700	1292384	1290035	S 8502-B	6.20 %
3052 702	1287391	1290143	S 3010 Y30R	41.32 %
3052 703	1287298	1290070	S 1040-Y20R	59.81 %
3052 704	1287537	1290144	S 5005-Y20R	25.32 %
3052 705	1287298	1290070	S 2030-G50Y	48.05 %
3052 706	1287509	1290107	S 2030 B10G	40.24 %

REFERENCES	PLAIN WELDINGRODS	NCS	LUMINOUS REFLECTANCE VALUES	LAYING DIRECTION
MULTISAFE AQUA				
25910 000	24806 090	S1505-Y40R	55,92 %	Reverse
25910 001	24806 091	S3502-Y	36,48 %	Reverse
25910 002	24806 092	S4502-Y	24,2 %	Reverse
25912 202	24806 099	S4005-Y50R	27,53 %	Same direction
25912 203	24806 098	S3020-Y10R	37,77 %	Same direction
25910 007	1287 836	S 6500-N	13,2 %	Reverse
25910 008	1287 870	S 6005-Y20R	18,8 %	Reverse
25910 009	1287 530	S 3005-Y50R	37,3 %	Reverse
25910 010	1287027	S 3000-N	40,8 %	Reverse
25910 011	1292770	S 2502-Y	39,6 %	Reverse
25910 013	1287 218	S 3020-B90G	34,6 %	Reverse
AQUARELLE WALL HFS				
3942 027	24806 013	S 0510-Y20R	67.10 %	Reverse
3942 033	24806 015	S 1000-N	68.70 %	Reverse
3942 034	24806 016	S 0500-N	71.30 %	Reverse
3942 037	24806 017	S 0300-N	80.30 %	Reverse
3942 040	24806 009	S 0603-Y20R	73.80 %	Reverse
3942 041	24806 002	S 2005-Y50R	47.50 %	Reverse
3942 042	24806 004	S 6005-Y50R	12.80 %	Reverse
3942 043	24806 003	S 3500N	28.40 %	Reverse
3942 044	24806 006	S 7000N	9.70 %	Reverse
3942 047	24806 010	S 1040-G60Y	50.40 %	Reverse
3942 048	24806 011	S 1070-Y50R	31.30 %	Reverse
3942 050	24806 018	S 1500-N	55.30 %	Reverse
3942 051	24806 019	S 3502-B	34.10 %	Reverse
3942 052	24806 020	S 2002-Y	47.70 %	Reverse
3942 053	24806 021	S 3502-Y	30.10 %	Reverse
3942 054	24806 022	S 1510-Y10R	55.80 %	Reverse
3942 057	24806 025	S 2020-R80B	43.20 %	Reverse
3942 058	24806 026	S 0500-N	68.50 %	Reverse
3942 059	24806 027	S 2005-Y20R	39.50 %	Reverse
3942 061	24806 029	S 5005-Y50R	24.90 %	Reverse
3942 076	24806 144	S 1010 - G	66,89 %	Reverse
3942 077	24806 156	S 2005 - B	57,09 %	Reverse
3942 078	24806 114	S 4010 - Y10R	26,0 %	Reverse
3942079	24806 124	S 0500 - N	78,88 %	Same direction
3942 080	24806 134	Fond: S 0502 - Y50R Motif: S 1002 - G50Y	75,09 %	Same direction
3942081	24806 121	Fond: S 1002 - Y50R Motif: S 1502 - Y50R	65,6 %	Same direction
3942 082	24806 159	S 5010 - B30G	19,13 %	Reverse

GUARANTEE

APPLICATION

The 10-year guarantee runs from receipt of the product by the contractor, on condition that the work is carried out according to the specifications and Technical Assessment.

The Wetroom Concept is a Technical Assessment (n°12/11-1599) procedure on the green list (without observation) of the Construction Quality Agency's (AQC) Product Safety Commission (C2P). A 10-year insurance policy is therefore required and applied without any additional conditions (consult your own insurance contract). Tarkett's Wetroom Concept is covered by a 10-year guarantee (construction material manufacturers) with AXA insurance.

CONTRACTORS

The success of the Wetroom concept rests on more than 25 years of high quality installations.
We recommend that contractors only use installers with experience in the Wetroom concept.

MAINTENANCE

FLOORING CARE: MULTISAFEGRANITORGRANITSAFE.T OR MULTISAFE OPTIMA

BEFORE USE

Vacuum clean the flooring.
Clean with an alkaline (pH 8/10) detergent and a scrubbing brush or a low speed cleaning machine with a nylon brush.
Rinse with clean water.

DAILY CARE

Wash by hand with a neutral (pH 6/8) detergent.
Periodic care/Return to original condition.
Wash with an alkaline (pH 8/10) detergent and a scrubbing brush or a low speed cleaning machine with a nylon brush.
Rinse with clean water.

RECOMMENDED PRODUCTS

Neutral detergent: Jontec Asset, 300 (Diversey), Dynatech Clean Force (Tana Professional), or similar
Alkaline detergent: Jontec Stride Degreaser (Diversey), Dynatech Alka (Tana Professional), or similar **Descaling detergent:** Sani Acid (Diversey), Dynatech Calc Off (Tana Professional), or similar
Disinfectant detergent: Sprint Degragerm (Diversey),Dynatech Clean Bacto (Tana Professional), or similar.

WALL COVERING CARE: AQUARELLE WALL HFS

Wash with a neutral (pH 6/8) detergent. Don't use an abrasive pad.
Rinse with fresh water.

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