











INNOVA™ IS A RANGE OF INTERIOR LINING, EXTERIOR FACADE AND FLOORING PRODUCTS WHICH GIVE A NEW DIMENSION TO THE BGC PRODUCT RANGE. THE PRODUCTS WITHIN THE INNOVA™ RANGE HAVE BEEN DESIGNED TO INSPIRE YOU TO CREATE INNOVATIVE AND DYNAMIC DESIGNS WITHIN YOUR BUILDING OR RENOVATION PROJECT.

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DURASCAPE™ WALL CLADDING SYSTEM

Duragroove[™] and Durascape[™] provide a modern look for exterior or interior installation. Available in different profiles, either smooth or different width grooves which provides flexibility to use the product that best fits your project. Duragroove[™] and Durascape[™] have a shiplap join which makes it a simple and quick product to install, and can be used in single storey and medium height installations.

Duragroove™ and Durascape™ wall lining system

- / Duragroove[™] vertically grooved for a contemporary alternative to the traditional weatherboard look
- / Lightweight and durable
- / Panels are acrylic sealed which aids paint application
- / Quick to install because it eliminates the need for taped and filled joints
- / Panels are not affected by insects, air, steam, salt or sunlight
- / BRANZ appraised

- / Available in 4 profiles:
 - Duragroove™ smooth narrow (100mm)
 - Duragroove™ smooth wide
 - (150mm)
 - Duragroove™ smooth extra wide (400mm)
 - Duragroove™ woodgrain wide (150mm)
- / Durascape™ smooth is ideal for a variety of paint finishes, providing individual design choice.



DURAGROOVE WALL CLADDING SYSTEM

DURASCAPE" WALL CLADDING SYSTEM

Applications

Duragroove[™] and Durascape[™] is a strong and durable cladding which has distinctive vertical grooves and is suitable for finishing with a textured paint, creating a rendered look. Duragroove™ and Durascape™ is suitable for low to medium rise buildings and can be used on both timber and steel framed buildings. It is also ideal for renovations and alterations to existing dwellings. In smaller areas it provides a distinctive looking feature wall and can be used either in interior or exterior applications.

Advantages

- A choice of groove widths and finishes available
- Has a shiplap join to ease installation
- Is lightweight and durable
- Quick to install because it eliminates the need for taped and filled joints
- Panels are not affected by insects, air, steam, salt or sunlight

Energy Efficiency Considerations

Energy Efficiency requirements for both residential and commercial buildings are a requirement under clause H1 of the New Zealand Building Code (NZBC). Thermal heat transfer into and out of the building envelope will affect the running cost of the building and careful consideration of thermal heat transfer needs to be addressed by the architects, engineers and building designers. Thermal bridging through steel framing will diminish the total R-Value (thermal resistance), of the wall. Thermal breaks are required for steel framed buildings and should be installed between the steel framing and the Duragroove™ panels. Thermal breaks should have a minimum R-Value of 0.2. Guidance on insulation requirements can be found in the latest edition of BRANZ publication -'House Insulation Guide'.

Product Information

Duragroove[™] and Durascape[™] panels are manufactured from Portland cement, finely ground silica, cellulose fibres and water. Panels are cured in a high-pressure steam autoclave to create a durable, dimensionally stable product.

Duragroove[™] and Durascape[™] panels are manufactured to the Australian / New Zealand Standard AS/NZS 2908.2-2000 Cellulose-Cement Products, Part 2: Flat sheets and Duragroove™ and Durascape™ is classified as Type A-Category 2.

Control of External Fire Spread

Duragroove[™] and Durascape[™] facade system have a peak heat release rate of less than 100kW/m2 and a total heat released of less than 25MJ/m2. In accordance with NZBC Acceptable Solution C/AS1 Table 5.1 the system is suitable for use on buildings with a SH Risk Group classification, at any distance to the relevant boundary. Refer to NZBC Acceptable Solutions C/AS2 - C/AS6 Paragraph 5.8.1 for the specific exterior surface finishes requirements for other building Risk Groups.

Prevention of Fire Occurring

Separation or protection must be provided to Duragroove™ and Durascape™ facade system from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of the NZBA Acceptable Solutions C/AS1 - C/AS6 and NZBC

Verification Method C/VM1 provide methods for separation and protection of combustible material from heat sources.

Fire Ratina

30 Minute FRR is achieved when Duragroove™ and Durascape™ is installed as per the below for either direct fixed or cavity construction. Fixed as per details contained within this brochure.

Timber Framing: Minimum 90mm x 45mm framing in accordance with NZS3604. Studs at maximum 600mm centres. Noggins at maximum 800mm centres. Double or staggered studs may be used.

Interior lining: 10mm or 13mm GIB® Fyreline fixed as per Winstone Wallboards Ltd specification GBTL 30 system from GIB® Fire Rated Systems October 2018.

Insulation: Any R2.2 nominal 95mm thickness fibre glass insulation.

For 60 minute FRR details contact Innova Fibre Cement or visit innovafibrecement.co.nz

Durability

Duragroove[™] and Durascape[™] physical properties make it a very durable product.

- / Duragroove[™] and Durascape[™] panels are immune to permanent water damage in both short and long-term exposure.
- Duragroove[™] and Durascape[™] panels will not rot or burn and are unaffected by insects, air, steam, salt and sunlight.

 / Duragroove™ and Durascape™ panels are not adversely
- affected over a temperature range of 0°C to 95°C.

Architectural Details

Full architectural details are available from Innova Fibre Cement, www.bgcinnovadesign.co.nz or on Productspec and full specification is available on Smartspec and Masterspec.

Design Considerations

The designer should determine the wind pressures for the project and design accordingly. Duragroove™ and Durascape™ can be situated in specific design wind pressures up to a maximum design differential ultimate limit state (ULS) of 2.5kps.

The timber structure should be designed to NZS3604. Alternatively the building can be to a specific design using NZS3603 and AS/NZS1170, and the framing must be of at least equivalent stiffness to the framing provisions of NZS3604.

In areas where there is a probability of high wind loading, care should be taken in the design detailing, especially around all opening, corners and other junctions to ensure the weather resistance of the total system.

Before Duragroove™ and Durascape™ is installed, particular care should be taken to ensure that all flashings and waterproofing work is complete, including all wall underlay or Durabarrier. If Duragroove[™] and Durascape[™] is installed onto an unlined wall ie gable end or garage walls then a rigid sheathing/air barrier must be installed - ie Durabarrier.

For Construction within the scope of E2/AS1, it is a requirement to have a horizontal flashing joint at the floor joist level between storeys and for construction greater than two storeys or 7 metres, an inter-storey flashing bridging the drained cavity must be installed.

Profiles











Weather Resistance / Freeze Thaw

The Duragroove[™] and Durascape[™] facade system has been successfully tested for weather resistance as per NZBC Verification Method E2/VM1.

Duragroove[™] and Durascape[™] should not be used in situations where it will be in direct contact with snow and ice for prolonged periods.

Structural Bracing

 $\mathsf{Duragroove^{TM}}$ and $\mathsf{Durascape^{TM}}$ is not recommended for structural bracing.

Bracing can be achieved with the addition of Durabarrier as a rigid sheathing/air barrier or using Duraliner or Plasterboard as interior linings.

Panel Sizes and Mass - Table 1

THICKNESS	PROFILE	WEIGHT		LENGTH mm			
mm	kg/m² mm	THITI	2450	2750	3000	3600	
	Duragroove™ Smooth Narrow	13.5	1200	/	/	/	
9	Duragroove™ Smooth Wide			/	√	√	√
	Duragroove™ Smooth Extra Wide			✓	√	√	
	Duragroove™ Woodgrain Wide			/	/	√	
	Durascape™			/		√	

Duragroove™ Smooth Narrow

100mm between grooves. 4.5mm width of groove

Duragroove™ Smooth Wide

150mm between grooves. 4.5mm width of groove

Duragroove™ Smooth Extra Wide

400mm between grooves. 10mm width of groove

Duragroove™ Woodgrain

150mm between grooves. 4.5mm width of groove

Sheet Tolerances

- / Width +0/-1mm
- / Length +0/-2mm
- / Thickness +10%/-0%
- / Diagonals difference (max) 2mm
- / Edge straightness deviation (max) 1mm

Handling and Storage

Duragroove™ and Durascape™ must be stacked flat, up off the ground and supported on equally spaced (max 400mm) level gluts. Care should be taken to avoid damage to the ends, edges and surfaces.

Sheets must be kept dry. When stored outdoors it must be protected from the weather. Sheets must be dry prior to fixing, jointing or finishing.

EXTRA CARE MUST BE TAKEN AT THE SHEET EDGES TO PREVENT CRACKING OF THE SHIPLAP JOIN.







Accessories

ALUMINIUM INTERNAL CORNER	3000mm	
ALUMINIUM EXTERNAL CORNER	12mm, 3000mm.	
ALUMINIUM HORIZONTAL FLASHING	3000mm	
CAVITY VENT STRIP	19mm x 2700mm	
EDGE SEALER		
CAVITY TIMBER BATTEN H3.2	70 x 20mm	

Accessories Supplied by Building Merchant

CAVITY TIMBER BATTEN H3.1	45 x 20mm	
SEALANT / ADHESIVE	Bostik Seal 'n' Flex FC	SELLIFE SELLIFE SELLIFE
SEALANT	Bostik Safetech Safe Seal or any BRANZ Appraised paintable sealant	Carrows & Carrow

Fasteners to Framing

Batten to Framing

65 x 2.87mm RounDrive Ring Shank Nail



60 x 2.8mm Jolt Head Galvanised Nail



Direct Fixed Duragroove™ and Durascape™

40 x 2.8mm Fibre Cement Nail - Galvanised or Stainless Steel



ND 50 Stainless Steel Brad Nails



Cavity Fixed Duragroove[™] and Durascape[™]

C25 304 Stainless Steel Brads



30 x 2.8mm Fibre Cement Nail Galvanised or Stainless Steel



25mm x 10g class 4 or Stainless Steel Countersunk Wood Screws



Refer to Innova Technical Specification – Steel Framing - for fixings when using Steel Framing.

Fixings must comply with the minimum durability requirements of NZBC.

Construction Details

Framing

Duragroove[™] and Durascape[™] panels can be installed vertically to both timber and lightweight steel frames.

Ensure that the frame is square and work from a central datum line. The frame must be straight and true to provide a flush face to receive the panels.

Innova recommend a maximum tolerance of 3mm-4mm in any 3000mm length of frame.

Duragroove[™] and Durascape[™] will not straighten excessively warped or distorted frames and any warping may still be visible after Duragroove[™] and Durascape[™] is applied. Warped framing will require remedial action.

Timber Frames

Timber wall framing behind Duragroove™ and Durascape™ must be treated and have moisture contents as required by NZBC Acceptable Solution B2/AS1.

Timber framing must comply with all current NZ Standards and any specific engineering design specifications.

Duragroove[™] and Durascape[™] requires a minimum framing width of 45mm. Studs spacing must not be greater than 600mm centres, Nog/dwang spacing must not be greater than 800mm centres.

Timber framing must have a maximum moisture content of 20% at the time of installation of Durabarrier or wall underlay.





DURASCAPE" WALL CLADDING SYSTEM

Construction Details

Cavity Construction

Duragroove[™] and Durascape[™] can be used as a wall cladding system in all NZS3604:2011 wind zones and situated in specific design wind pressures up to a maximum design differential ultimate limit state (ULS) of 2.5kPa.

Cavity Batten

Cavity battens must be either 70 x 20mm or 45 x 20mm and must be fixed to the studs.

The primary batten behind the vertical joint can be either 45 x 20mm or 70 x 20mm cavity battens - the 70 x 20mm batten provides a wider platform to fix to.

Cavity battens must be structurally fixed with 65 x 2.87mm RounDrive Ring Shank Nails or 60 x 2.8mm Jolt Head Galvanised Nails. They must be fixed at maximum 300mm centres.

Where studs are greater than 450mm centres and a wall underlay is used, a wall underlay support must be installed over the underlay at maximum 300mm centres horizontally. The vertical sheet joints must coincide with the centre line of the cavity battens. Stud centres may have to be designed to coincide with the sheet joints.

Fixing Duragroove™ and Durascape™ to Cavity Battens

FIXINGS	FIXING CENTRES	FROM SHEET EDGE
C25 304 Stainless Steel Brad	150mm	18mm
30 x 2.8mm Fibre Cement Nail	200mm	18mm
25mm x 10g Countersunk Wood Screw	200mm	18mm

All fixing types must be used in conjunction with Bostik Seal 'n' Flex FC.

Duragroove[™] and Durascape[™] must be fixed to the cavity batten with a continuous 6mm bead of Bostik Seal 'n' Flex FC to all contact surfaces. The intermediate batten must have 2x6mm beads of Seal 'n' Flex FC. A 4mm bead must be applied to the ship lap joint prior to the installation of the next sheet.

Note: Bostik Seal 'n' Flex FC must only be applied just prior to the installation of the Duragroove[™] and Durascape[™] sheets as it is a fast cure adhesive.

Duragroove[™] and Durascape[™] sheets and cavity battens must be dry and free from dust prior to the application of Bostik Seal 'n' Flex FC. The adhesive must not be applied in temperatures below 5°.

Direct Fixed Construction

Duragroove[™] and Durascape[™] can be used as a direct fixed wall cladding system in NZS3604:2011 wind zones up to and including Very High and with a risk score of 0-6.

Where studs are greater than 450mm centres and a wall underlay is used, a wall underlay support must be installed over the underlay at maximum 300mm centres horizontally. The vertical sheet joints must coincide with the centre line of the cavity battens. Stud centres may have to be designed to coincide with the sheet joints.

Direct Fixing Duragroove™ and Durascape™Duragroove™ and Durascape™ can be fixed with the following fixings in the specified wind zones:

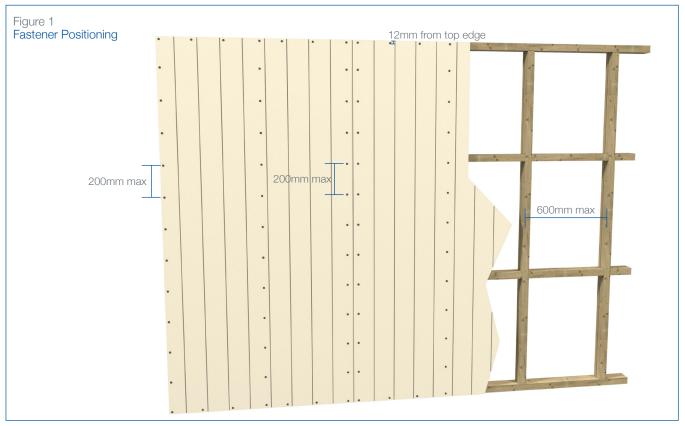
FIXINGS	FIXING CENTRES	WIND ZONE
40 x 2.8 Fibre Cement Nail	200mm	Up to Very High Wind Zone
ND50 Stainless Steel Brad Nail	150mm 100mm 75mm	Low Wind Zone Medium Wind Zone High Wind Zone

All fixings 18mm from sheet edge. Fixing at specified centres to all framing.

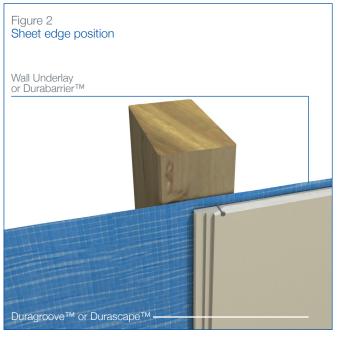
Position the underlap sheet on every stud 3mm past the centre of the stud to ensure the fasteners fixed to the edge of the sheet have adequate distance into the stud.

Apply a continuous 4mm bead of Bostik Seal 'n' Flex FC to the edge of the shiplap joint and install the next sheet.

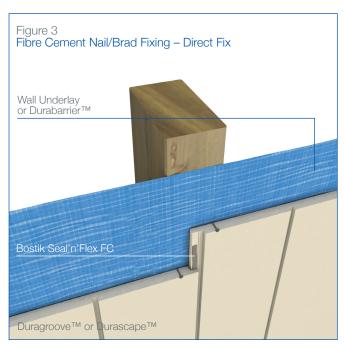
Direct Fixed Installation Details



Refer to page 8 for fixings and fixing centres for the Wind Zone.



Position the underlap sheet on every stud 3mm past the centre of the stud to ensure the fasteners fixed at the edge of the sheet have adequate distance into the stud.



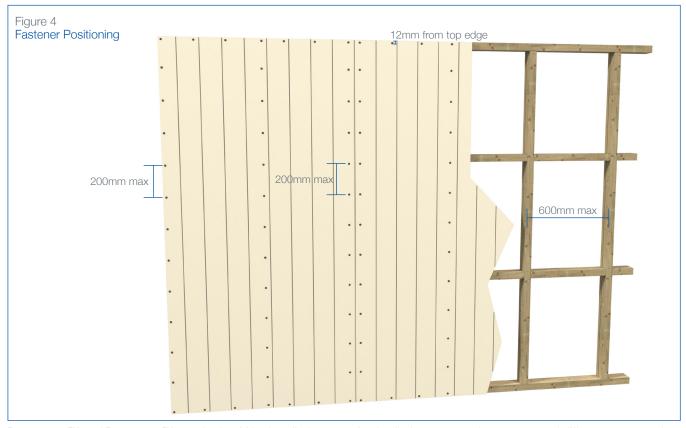
Details are for both $\mathsf{Duragroove^{TM}}$ and $\mathsf{Durascape^{TM}}.$





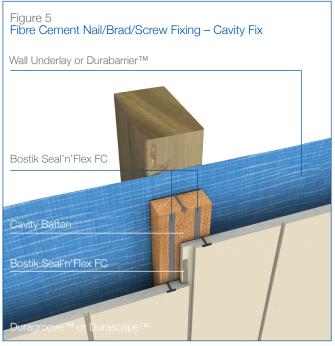
DURASCAPE™ WALL CLADDING SYSTEM

Cavity Installation Details

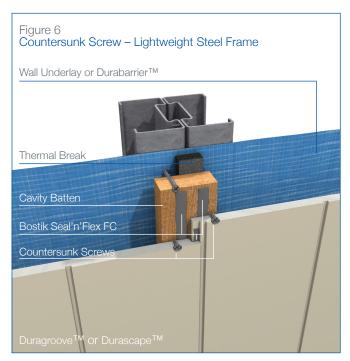


Duragroove[™] and Durascape[™] panels should be installed vertically with all sheet edges fully supported. The centre joints must coincide with the centre lines of the framing member and all sheets should be installed in one direction.

As detailed on page 7, there are several different fasteners that can be used to fix $\mathsf{Duragroove^{TM}}$ panels.



Details are for both Duragroove™ and Durascape™.

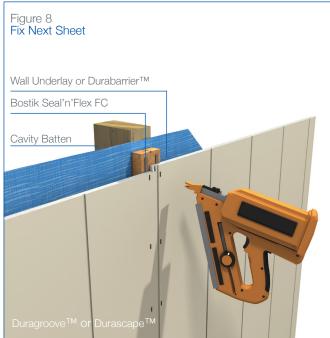


To fix the first sheet, set in place ensuring the required edge distances are maintained.



Apply a continuous 4mm bead of Polyurethene sealant to the edge of the shiplap join.





Once both sheets are fixed, check the joint for gaps and fill with additional sealant if required.

Details are for both $Duragroove^{TM}$ and $Durascape^{TM}$.





DURASCAPE™ WALL CLADDING SYSTEM

Installation Details

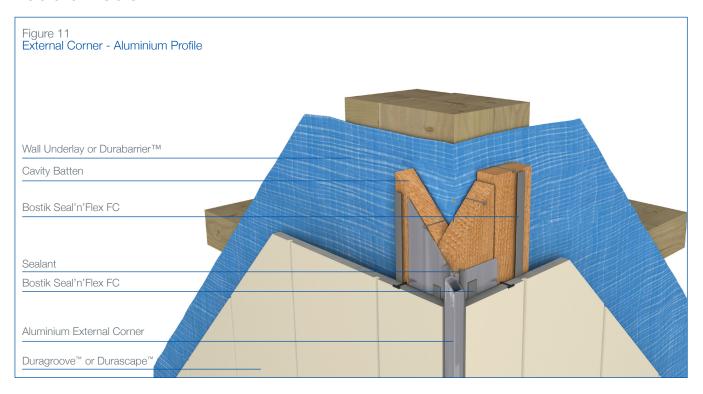
The architectural intent and details of buildings vary from one designer to the next and the variety of facade details would be impossible to catalogue.

The detail diagrams following are intended to assist the designer in achieving a high quality weather resistant Duragroove $^{\text{TM}}$ and Durascape $^{\text{TM}}$ installation.

The designer should not digress from the specification set out in this manual.



Details are for both Duragroove $^{\text{TM}}$ and Durascape $^{\text{TM}}$.

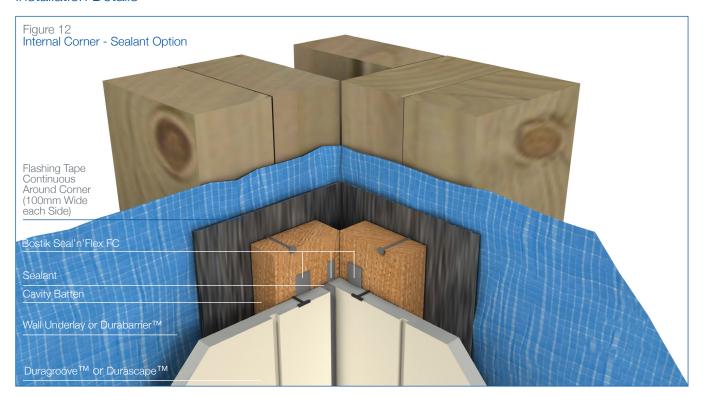


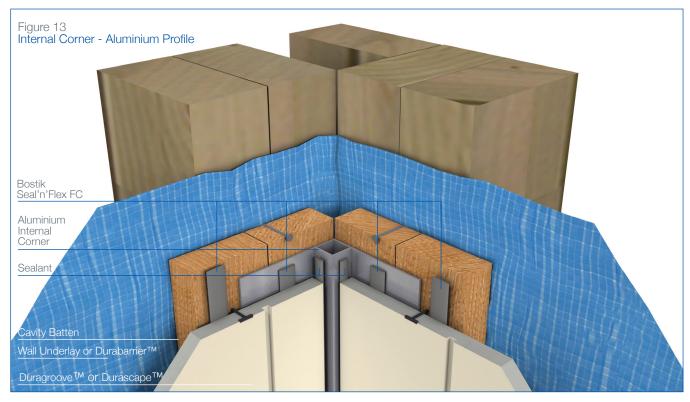
Details are for both $Duragroove^{TM}$ and $Durascape^{TM}$.



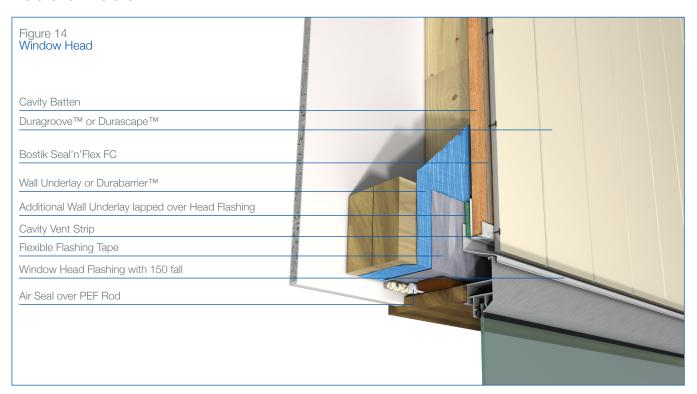


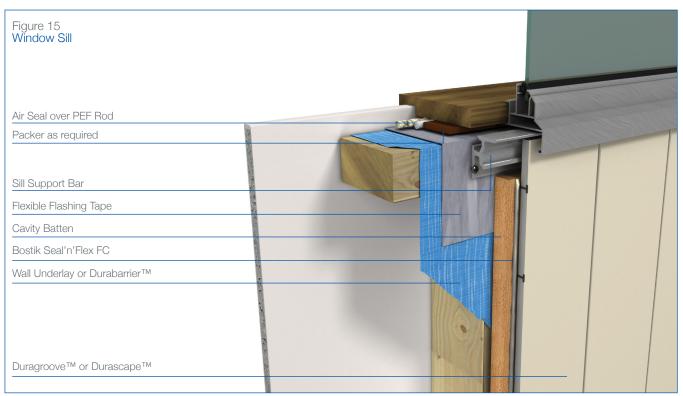






Details are for both Duragroove™ and Durascape™.





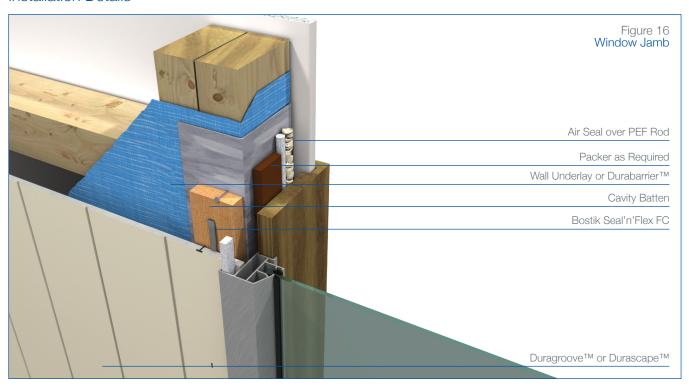
Details are for both Duragroove $^{\text{TM}}$ and Durascape $^{\text{TM}}$.

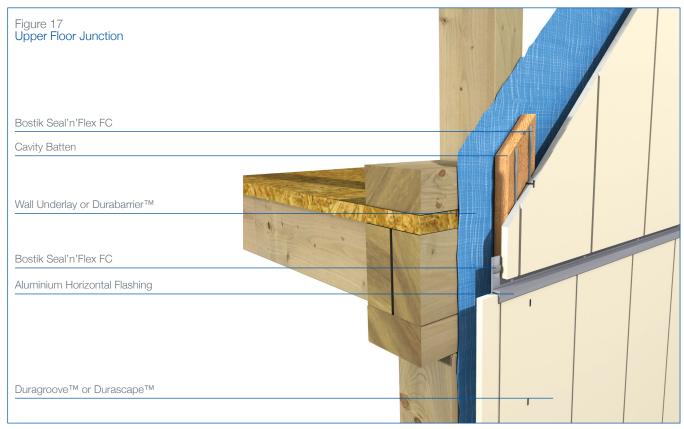




DURASCAPE™ WALL CLADDING SYSTEM

Installation Details





Details are for both Duragroove $^{\rm TM}$ and Durascape $^{\rm TM}.$

Moisture Management

Designers, specifiers and builders have a duty of care to identify moisture-associated risks with any individual building design.

Wall construction design should consider both the interior and exterior environments of the building to effectively manage moisture. Special consideration should be given to buildings that are in extreme climates or at higher risk of wind driven rain.

In addition, all wall openings, penetrations, junctions, connections, window heads, sills and jambs must incorporate appropriate flashing for waterproofing. All other components, materials and installation methods used to manage moisture in walls should comply with the relevant standards of the New Zealand Building Code.

Maintenance

Building owners are responsible for the maintenance of DuragrooveTM and DurascapeTM facade systems. The maintenance requirements should be determined by the specifier based on the location and exposure of the building.

It is recommended that

- / Regular cleaning at least annually of the paint finish with water and a mild detergent
- / Do not water blast
- / Inspect regularly and repair if required
- / Check ground clearances
- / Follow paint manufacturer's recommendations

Finishing

Painting of Duragroove[™] and Durascape[™] is required to meet the durability and the external moisture management of the NZBC and Innova Warranty. Duragroove[™] and Durascape[™] must be painted within 90 days of installation.

DuragrooveTM and DurascapeTM panels must be clean, dust free and dry before painting.

If the Aluminium corner and horizontal flashings have been used, $Duragroove^{TM}$ and $Durascape^{TM}$ can be painted a dark colour.

For brad and screw installed panels, the brad head must be flush with the sheet surface and skimmed with a suitable exterior 2 part builder's filler. The skimmed area should be spot primed.

Innova recommend that Duragroove[™] and Durascape[™] is coated with a minimum of two coats of quality high build acrylic paint. Refer to the paint manufacturer's recommendations for specific details.



DURAGROOVE™ WALL CLADDING SYSTEM

DURASCAPE™ WALL CLADDING SYSTEM

Warranty

Etex Australia Pty Ltd NZ warrants, subject to the Conditions and Notes set out below, that its products be:

- Free from defects caused by defective materials or workmanship (manufacturer); and
- 2) Resistant to rotting, fire and cracking,

For the following period from the date of purchase of each product:

- 25 years for Nuline[™] Plus, Stratum[™] and Duraplank[™] ranges
- 15 years for Montage™
- 50 years for Durabarrier (when used as bracing sheets)
- 15 years for all other products.

If you purchase any Innova Fibre Cement (NZ) product and find that it does not meet the above warranty during the relevant warranty period, Innova Fibre Cement (NZ) will at its option, repair or replace the product, supply equivalent replacement products or reimburse the purchase price of the product, subject to receiving a valid claim, product inspection and confirmation of the existence of a defect by Innova Fibre Cement (NZ). We will bear the cost of any such repair, replacement or refund.

Conditions

 This warranty is non-transferable. To claim under this warranty, you must submit proof of purchase and a written claim to Innova Fibre Cement (NZ) at the following address:

27 Accent Drive, East Tamaki, Auckland Postal Address PO Box 76695, Manukau City, Auckland

- ii) The product must be installed and maintained in accordance with the relevant Innova Fibre Cement (NZ) literature current and available at the time of purchase. All additional products used in conjunction with the Innova Fibre Cement product(s), including accessories, jointing systems and coatings must be applied or installed according to the relevant manufacturer's instructions.
- iii) Claims must be submitted in writing within 30 days of the defect becoming reasonably apparent. If the defect is detected prior to installation, the claim must be submitted prior to installation.
- iv) Your sole remedy under this warranty is the repair or replacement of the product, supply of equivalent replacement product or reimbursement of the purchase price as described above. Innova Fibre Cement (NZ) is not liable for any damage or losses (direct or indirect) including (without limitation) any property damage or personal injury, economic loss or loss of profits, consequential loss arising in contract or negligence or howsoever arising.
- v) Innova Fibre Cement (NZ) is not liable for any claims, damages or defects arising from or attributed to:
- poor workmanship, poor design or detailing of the project,
- products not supplied by Innova Fibre Cement (NZ),
- settlement or structural movement or movement of materials to which the product is attached,
- incorrect design of the structure,
- acts of God, including but not limited to floods, cyclones, earthquakes or severe weather or unusual climate conditions, performance of coatings or paints applied to the product,
- normal wear and tear, growth of mould, mildew, fungi,

bacteria or any other organism on the product's surface (exposed or unexposed).

Failure to comply with all relevant requirements of the current New Zealand Building Code regulations and standards in the design and construction of the project.

Please note that:

- If any remedy under this warranty involves recoating or painting of Innova Fibre Cement (NZ) products, there may be slight colour differences between the replacement product and the original products due to the effect weathering and variations in materials over time.
- Innova Fibre Cement (NZ) does not warrant any product's suitability for any purpose or ability to comply with the relevant conditions set out in the New Zealand Building Code. It is the responsibility of the building designer to ensure that the products used are suitable for the intended project and that specific design is conducted where appropriate. All warranties, conditions, liabilities and obligations other than those specified in this warranty are excluded to the fullest extend allowed by the law.
- The instructions and recommendations in Innova Fibre Cement (NZ) literature are based on good building practice, but are in no way an exhaustive statement of all relevant information and are subject to conditions above. Innova Fibre Cement has tested the performance of its products when installed in accordance with the product's technical specification, in accordance with the standards required by the New Zealand Building Code.

Disclaime

The successful performance of the relevant product depends on a number of factors outside the control of Innova Fibre Cement (NZ). As such, Innova Fibre Cement (NZ) shall not be liable for the recommendations made in its literature and the performance of the products/systems including its suitability for any purpose or ability to comply with the relevant conditions set out in the New Zealand Building Code. It is the responsibility of the building designer to ensure that the details and recommendations provided in the relevant Innova Fibre Cement (NZ) installation guide are suitable for the intended project and that specific design is conducted where appropriate.

The instructions and recommendations in Innova Fibre Cement (NZ) literature are based on good building practice, but are in no way an exhaustive statement of all relevant information and are subject to conditions above. Innova Fibre Cement has tested the performance of its products when installed in accordance with the product's technical specification, in accordance with the standards required by the New Zealand Building Code. Those test results demonstrate the products compliance with the performance criteria set out by the New Zealand Building Code.

Terms and Conditions

Innova Fibre Cement's Terms and Conditions of Sale ("Agreement"), as in place and published at the date of this quote, which are available upon request or on our website at **innovafibrecement.co.nz** The purchaser's terms and conditions, howsoever provided, do not form part of the Agreement.

Notes	



Telephone 09 273 1457

f @InnovaBuildingSystemsNZ@ @innovabuildingsystemsnz



innovafibrecement.co.nz



