

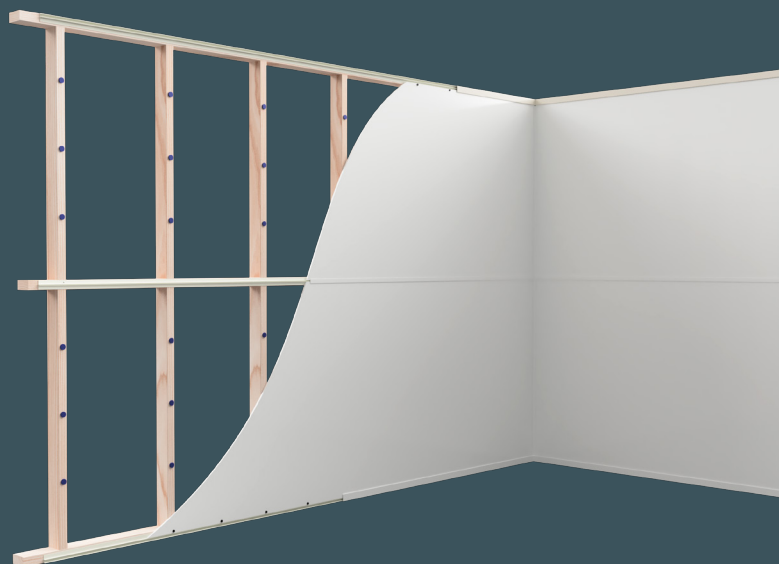


Reduce, Reuse, Recycle

Specification and Installation Guide

Climateline[®]

Pre-Finished
Interior Lining System



Manufactured by:



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Climateline®

Pre-Finished Interior Lining System

ClimateLine® is a complete pre-finished interior wall lining system designed for commercial and residential projects for new and retrofit applications.

The system is ideal as a finished overlay over existing walls to avoid the use of wet trades in office and retail situations. The addition of the Climateline® system will not interfere with existing fire or noise systems as an overlay.

The ClimateLine® system consists of a range of pre-finished plasterboard panels and a range of attractive, discreet colour matching trim. No further finishing is required once the panels with trim are installed. The trim is designed to offer excellent mechanical fastening around the perimeter of the sheets

Manufactured from quality square edge standard and water resistant plasterboard manufactured in New Zealand then powder coated with Climate® Décor Shield®, creating a durable, moisture resistant, attractive and sustainable lining.

The use of two-piece specifically designed mouldings makes replacement of sheets quick and simple where damage occurs, without having to replace and repaint whole walls or make repairs. Colour matching is never an issue.

INTENDED USES

The Climateline® System is generally intended for use in commercial and residential interior applications where pre-finished lining is desirable.

The Climateline® System is suitable as an overlay of existing walls and as a finished overlay of fire, noise, and bracing systems without compromising performance of those systems.

The Climateline® System can be used in residential interior situations, provided it is not expected to contribute to the bracing on fire systems.

WHY CLIMATELINE®

The Value Proposition

When time and costs are crucial for your project's success, Climateline® provides a cost effective pre-finished plasterboard lining system that can save up to 60% valuable time through eliminating stopping and painting.

The Climateline® system allows for individual sheet replacement for easy, cost effective repairs when the unexpected occurs.

Speed of installation

The Climateline® Interior Lining System does away with the frustrating time delays involved in organising and having wet trades such as plasterboard stoppers and painters on site.

Traditional methods of finishing plasterboard walls can take as much as two weeks by the time three coats of both plaster and wet paint has been applied with drying between coats, even when there is only one room involved. The single step, simple installation of the Climateline® system can take as little as one day to finish a room, with very little cleanup required.

Performance and Quality

The Climateline® Interior Lining System combines the proven performance and quality of GIB® plasterboard with the unique, factory applied, hard wearing Climateline® coating solution, manufactured in New Zealand and NZBC compliant.

Sustainability

Climateline® finished plasterboard is certified by Global GreenTag- Level B.

Climateline® Powder Coatings are New Zealand manufactured in house, and are VOC free.

Specially formulated, the coatings are applied using purpose designed and built, low waste plant, then cured with high efficiency, low energy heating equipment.

Neither water nor solvents are involved in the process.

Climateline® powder coated GIB® Plasterboard can be returned to source for recycling or converted to gypsum additive for soil treatment.

APPLICATIONS

Education

Schools and universities are high traffic environments that demand durable, hard wearing and scratch resistant surfaces which can be easily maintained. The Climateline® powder coated surface is significantly harder and more durable than normal wet paint systems and because Climateline is pre-finished, the installation saves time and mess, making it ideal to complete project during school holidays or even weekends without disrupting the classroom.



Hygiene

Very few situations demand such high standards of hygiene than the likes of Hospitals, Food Industry and Laboratories. The Climateline® System can meet those demands. The consistent, non porous, durable Climateline® powder coating is formulated to ensure clean, easy to maintain environments.



Office and Commercial

The Climateline® System is ideal for office and commercial environments particularly for re-fits and refurbishments where reduced time and disruption are desirable. Also ideal for fire rated walls where an overlay of Climateline can eliminate the need for stopping joints and screws.



Residential

Climateline® is a great option for prefab, modular and volume metric house construction where a pre-finished versatile solution is required. With a surface finish 5 times more serviceable and scratch resistant than a regular liquid paint finish, Climateline® is also ideal for laundry, bathroom, garages and games rooms for new home renovation.



LIMITATIONS



Moisture

The ClimateLine® System is not intended for exterior use or in high humidity areas where exposure to humidity above 90% RH is expected. Such areas include group shower or steam rooms and chlorine rich environments, such as indoor heated swimming pools.

The ClimateLine® System is not intended for use within shower enclosures but is suitable for use in wet areas such as bathrooms, laundries and kitchens where a moisture resistant surface is required.



Wall Bracing

The Climateline® System cannot be used as structural bracing. However, ClimateLine® can be installed as an overlay to an approved bracing system provided it does not interfere with the performance specifications of the approved bracing system and that the approved system is inspected prior to overlaying in accordance with the requirements of the building code.



Passive Fire Resistance

The Climateline® system cannot be used as an approved fire rated wall system. However, ClimateLine® can be installed as an overlay to an approved system provided it does not interfere with the performance specifications of the approved system.



Temperature

As with most plasterboard applications, The ClimateLine® System cannot be exposed to temperatures higher than 52°C for prolonged periods.



Structure

The Climateline® Lining System is limited to the lining, jointing accessories and fixing method only. It is the responsibility of the installer to ensure the support structure is suitable and will meet the requirements of the New Zealand Building Code.

The Climateline® Lining System may not be suitable for applications where large differential air pressures are likely to occur. An underlay of mechanically fastened plasterboard may need to be considered where structural requirements exist.

COMPLIANCE

New Zealand Building Code (NZBC)

Clause B2 Durability

The ClimateLine® System meets the durability requirements for interior linings of 5 years in accordance with B2 3.1 (c) and 15 years for wet area linings when using GIB® Aqualine.

Clause C Fire

ClimateLine® Panels have been tested in accordance with AS/NZS 3837, Heat Release and Smoke Production by an accredited independent testing authority, for the purpose of establishing Group Classification in accordance with the NZBC Verification Method C/VM2 Appendix A.

Group 1-S.

The test results can be down loaded from the Climate® Website www.climatesurfaces.co.nz

Hygiene

Clause G3.3.2 Food preparation & prevention of contamination

Building Code of Australia (BCA)

Durability

The ClimateLine® System meets the durability requirements for interior linings of 10 years in accordance with the BCA.

Fire Properties

ClimateLine® panels have also been tested in accordance with the AS/NZS 3837 to determine group classification in accordance with the Building code of Australia.

BCA Clause C1.10A Group 1.

Plasterboard Manufacture

The plasterboard used for ClimateLine® is manufactured by Winstone Wallboards Ltd and complies with ASNZS 2588.

Physical Properties of the plasterboard and relevant system technical data and installation can be found on the GIB® web site <https://www.gib.co.nz/downloads-and-resources/library/>

WARRANTY

Provided that The ClimateLine® System is installed in complete accordance with the Intended uses, limitations and installation methods outlined in this publication, the ClimateLine® System, carries a warranty of ten years.

For the full warranty terms and conditions visit www.climatesurfaces.co.nz



SYSTEM COMPOSITION

The Climateline® System is designed to suit a multitude of situations and configurations.

Substrates and Framing

The system is suitable for use on most substrates and framing types. Including:

- Timber Framing
- Metal Framing
- Battened concrete and concrete block walls
- Overlay on existing plasterboard walls
- Overlay on fire rated, noise control and bracing walls.
- Demountable partitioning.

All substrates and framing must meet the requirements of the building code, including any structural, noise control or fire resistance requirements.

Air pressure differentials must be taken into account for steel framing and follow tables supplied by the framing manufacturer.

It is the responsibility of the designer or installer to ensure concrete or masonry substrates are free from moisture and are clean and dry before overlaying.

Regardless of the substrate type, the substrate or framing must provide support to all sheet edges and jointers and provide vertical support at 600mm centres.

Climateline® sheets

Climateline® sheets are manufactured in New Zealand by Winstone Wallboards Ltd, the manufacturer of the GIB® range of plasterboard products, and coated with a unique powder coating system manufactured and applied by Climate Surfaces Ltd.

Because the system requires no stopping of joints, sheets are manufactured with square edges.

Sheets are available 10mm or 13mm thick, 1193mm wide and 2400mm, 2700mm, 3000mm, long.

Other lengths are available subject to availability and project specific lengths and colours are available for volumes over 300 m²

Sheets are also available in Climateline® Standard for normal applications and Climateline® Aqua for wet areas such as bathrooms, toilets and kitchens.

SYSTEM COMPOSITION

Climateline® Coating

ClimateLine® Sheets and aluminium face jointers are coated with Climate® Décor Shield powder coating manufactured by Climate Surfaces.

Climate® Décor Shield produces an attractive mat finish that is hard wearing, easy to clean and maintain; and is VOC free.

A range of sizes are available ex-stock in Artic White and on a made-to-order basis in other colours (see brochure). ClimateLine® can also be supplied in custom made colours on a made to order basis subject to volumes of 300sqm minimum quantities.

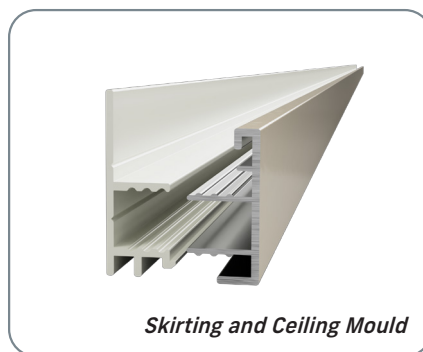
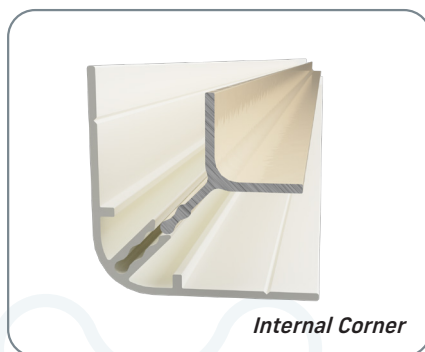
See Availability Chart at: www.climatesurfaces.co.nz/ClimateLine

Jointers and Trim

Jointers and trim are custom designed and manufactured in two parts for ease of fitting sheets.

The face trim is manufactured from extruded aluminium and is powder coated to match the board in colour and finish.

The receiving part of the trim is manufactured from PVC extrusion for easy fit and removal when required.



CLIMATELINE® OVER METAL FRAMING

Design Considerations

Framing

It is the responsibility of the designer or installer to determine the structural requirements of framing to meet the requirements of the NZ building code or specific use.

As a minimum, the framing should meet the requirements of the framing manufacturer or the NASH Standard 2:2019 Steel Framed Houses.

The Climateline® system cannot be used to provide structural bracing. However where appropriate, may be used where other bracing is providing the required bracing demand such as "K" bracing is meeting the bracing demand without linings.

In commercial and high rise buildings, manufacturers deflection tables must be followed and differential air pressures taken into account.

Framing Layout

Studs are placed at a minimum of 600mm centres and at all vertical joints and corners.

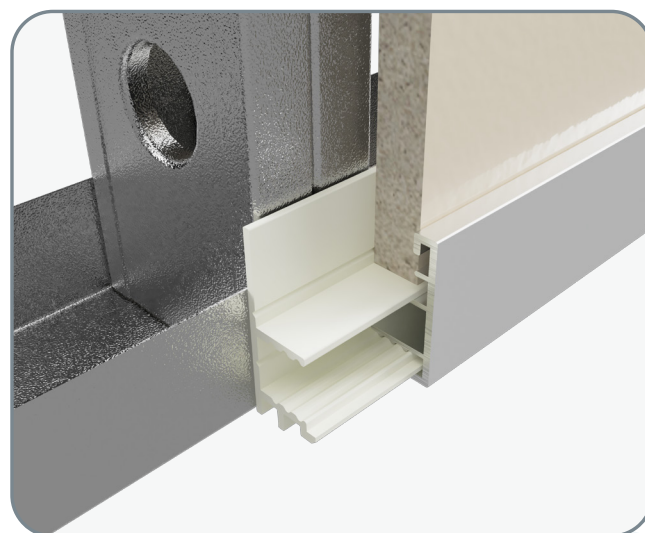
Horizontal nogs must be provided at all horizontal sheet joints.

Top and bottom plates are fixed as per framing manufacturer's requirements, as required by specific design, or to suit demountability.

Climateline® Sheets

Climateline® sheets can be fixed either horizontally or vertically. While this is generally an aesthetics decision, horizontal fixing requires less joints.

Walls over 2400mm in height will most likely better suite vertical fix.



CLIMATELINE® OVER TIMBER FRAMING

Design Considerations

Framing

It is the responsibility of the designer or installer to determine the structural requirements of framing to meet the requirements of the NZ building code.

As a minimum, the framing should meet the requirements of NZS3604.

The Climateline® system cannot be used to provide structural bracing. However where appropriate, may be used where other bracing is providing the required bracing demand such as checked in plywood or where plasterboard is used and overlaid with Climateline®.

Framing Layout

Studs are placed at a minimum of 600mm centres and at all vertical joints and corners.

Horizontal nogs must be provided at all horizontal sheet joints.

Top and bottom plates are fixed as per NZS 3604 or as required by specific design or where demountability is required.

Climateline® Sheets

Climateline® sheets can be fixed either horizontally or vertically. While this is generally an aesthetic decision, horizontal fixing requires less joints.

Walls over 2400mm in height will most likely better suite vertical fix.



OVERLAY EXISTING WALLS

Design Considerations

Framing

Climateline® is ideal to use as an overlay of both existing walls and new walls where climateline alone, will not satisfy the desired technical attributes.

In particular Climateline® can offer an aesthetic overlay to bracing walls and X-ray walls or contribute to fire resistance or noise control.

Substrate

It is the responsibility of the designer or installer to determine the structural integrity of the existing wall and underlying framing meets the requirements of the NZ building code and that it is suitable for overlay.

It is also their responsibility to ensure the surface of the substrate is dry and free of loose material.

Climateline® Sheets

Climateline® sheets can be fixed either horizontally or vertically. While this is generally an aesthetic decision, horizontal fixing requires less joints.

Walls over 2400mm in height will most likely better suit vertical fix.



FIRE RESISTANCE

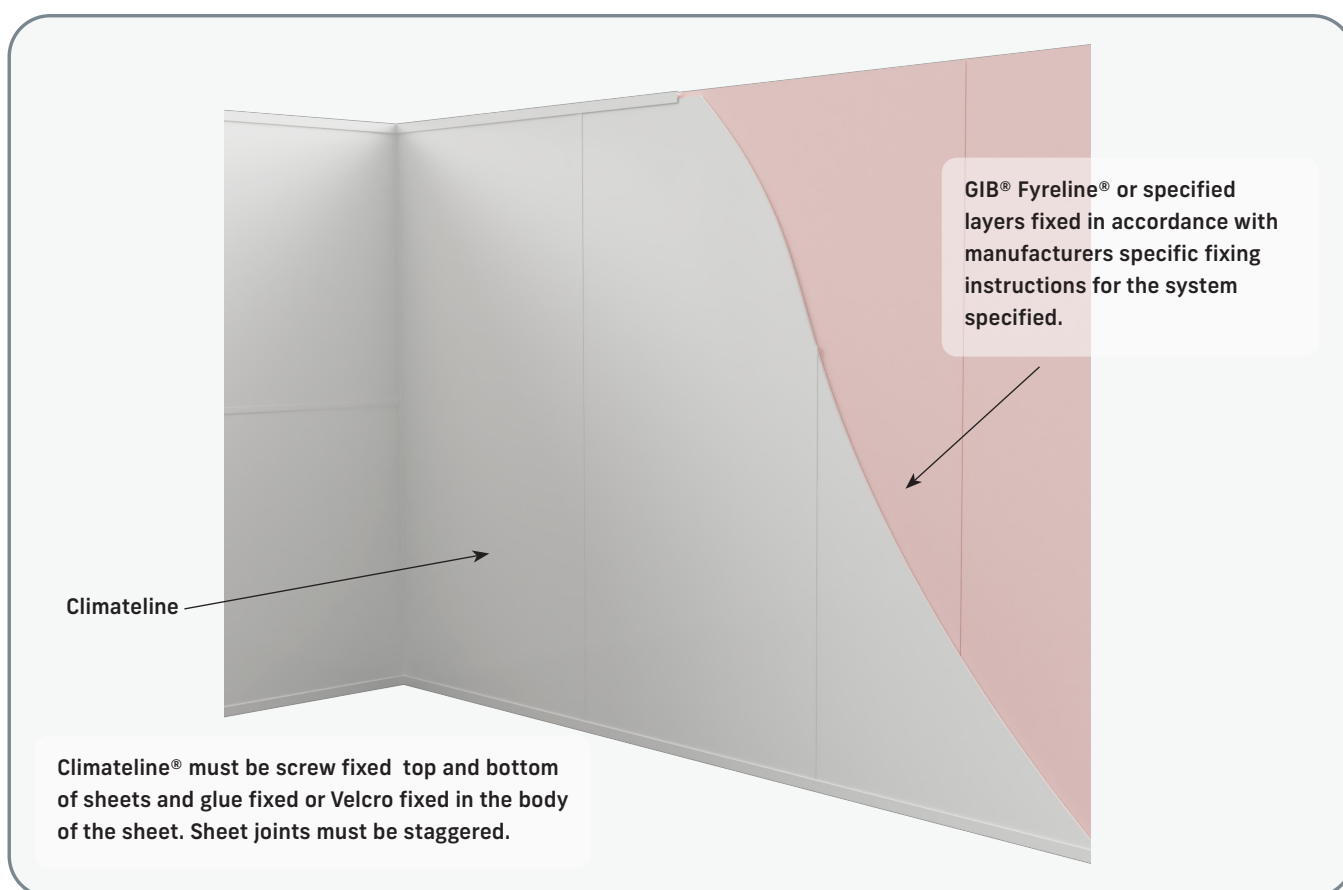
Climateline® can be used as an overlay to tested fire resistant systems.

It is the responsibility of the designer or installer to determine the structural integrity of the existing wall and underlying framing meets the requirements for the as tested system and of the NZ building code, and that it is suitable for overlay.

Fire Rated Systems

Climateline® is suitable for use in all fire rated wall systems available on the GIB® web site at www.gib.co.nz.

In order to achieve the stated FRR the system specification must be followed before fixing the outer climateline® layer, except that the overlaid system does not require the screws and joints to be stopped. Provided that the joints are staggered and the Climateline® is fixed as prescribed in this publication. All joints must be supported by framing to suit vertical fix.



NOISE CONTROL

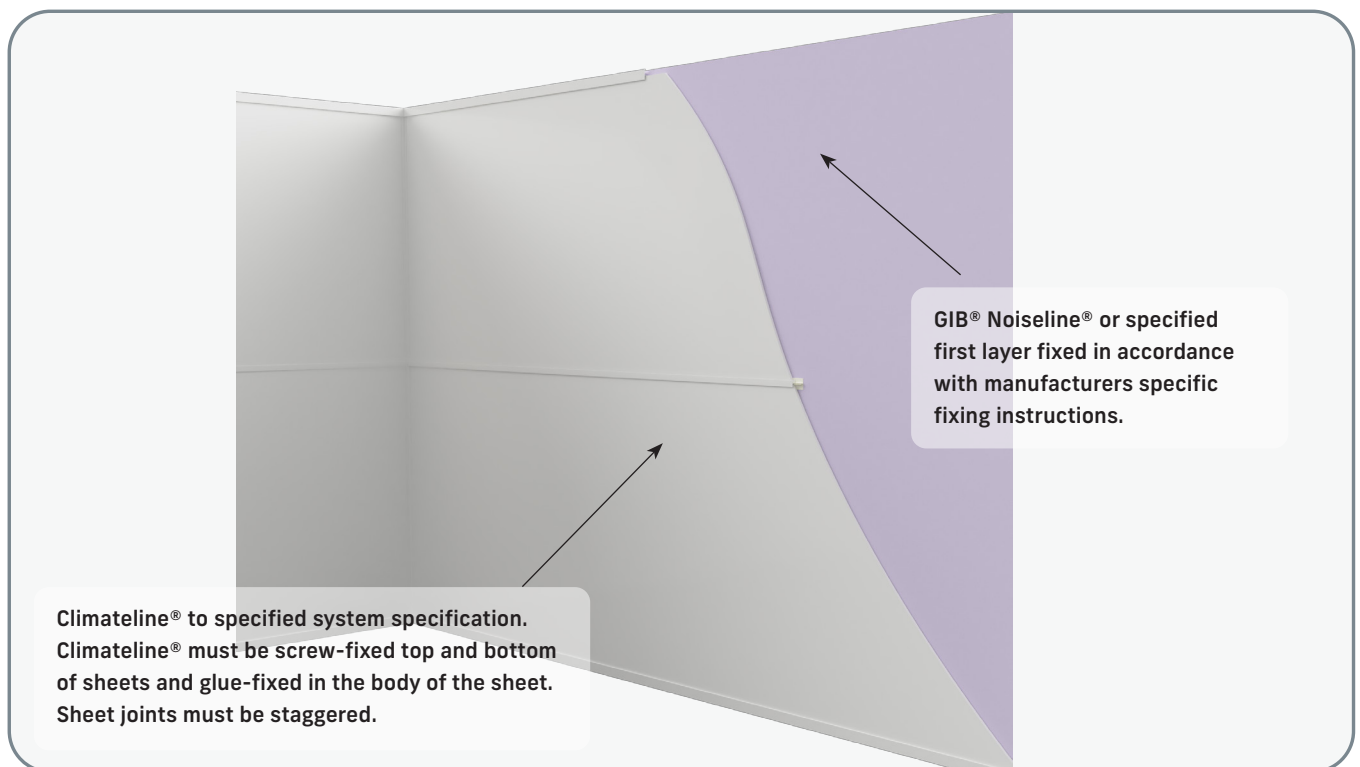
Climateline® can be used either as a component to a tested noise control system or to simply enhance the sound attenuation of office walls.

Noise Control Systems

Climateline® is suitable for use in a range of tested noise control systems available on the GIB® web site at www.gib.co.nz. In order to achieve the stated STC, the system specification must be followed.

The tables on the following page give some indicative STC ratings of wall systems overlaid with 10mm Climateline®. These systems are intended where intertenancy sound insulation is not required.

The addition of 10mm Climateline will offer approximately 3-5 STC improvement in sound insulation per side.



NOISE CONTROL

STC Ratings

Steel Stud				64 x 34 x 0.55mm	90 x 38 x 0.75mm
Lining	Side 1	Side 2	Cavity	STC	STC
Inner Layer	13mm GIB® Standard	13mm GIB® Standard	Empty	36	37
			Pink Batts	39	41
Outer Layer	10mm Climateline®	N/A	Empty	40	43
			Pink Batts	44	47
Outer Layer	10mm Climateline®	10mm Climateline®	Empty	45	48
			Pink Batts	50	51
Inner Layer	13mm GIB® Fyrelite®	13mm GIB® Fyrelite®	Empty	37	39
			Pink Batts	40	43
Outer Layer	10mm Climateline®	N/A	Empty	42	44
			Pink Batts	46	48
Outer Layer	10mm Climateline®	10mm Climateline®	Empty	47	48
			Pink Batts	51	52
Inner Layer	13mm GIB Noiseline®	13mm GIB Noiseline®	Empty	45	43
			Pink Batts	45	47
Outer Layer	10mm Climateline®	N/A	Empty	45	47
			Pink Batts	50	51
Outer Layer	10mm Climateline®	10mm Climateline®	Empty	49	50
			Pink Batts	52	52

Timber Stud				90 x 45mm	140 x 45mm
Lining	Side 1	Side 2	Cavity	STC	STC
Inner Layer	13mm GIB® Standard	13mm GIB® Standard	Empty	34	37
			Pink Batts	38	40
Outer Layer	10mm Climateline®	N/A	Empty	39	42
			Pink Batts	43	45
Outer Layer	10mm Climateline®	10mm Climateline®	Empty	44	46
			Pink Batts	47	48
Inner Layer	13mm GIB® Fyrelite®	13mm GIB® Fyrelite®	Empty	36	39
			Pink Batts	39	42
Outer Layer	10mm Climateline®	N/A	Empty	40	43
			Pink Batts	44	46
Outer Layer	10mm Climateline®	10mm Climateline®	Empty	45	47
			Pink Batts	48	49
Inner Layer	13mm GIB Noiseline®	13mm GIB Noiseline®	Empty	39	41
			Pink Batts	43	44
Outer Layer	10mm Climateline®	N/A	Empty	43	45
			Pink Batts	47	47
Outer Layer	10mm Climateline®	10mm Climateline®	Empty	47	47
			Pink Batts	49	49

WET AREAS AND HYGIENE

The tough, semi gloss, and easy clean surface of Hygiene White Climateline® makes it ideal for use in wet areas as well as hygiene applications.

Climateline® is available in GIB® Aqualine which should be used in these areas.

For wet areas in particular, special attention needs to be paid to meeting the requirements E3/AS1 of the NZ Building Code, and any special requirements of manufacturers of wet area fittings and penetrations.

Climateline® is suitable for use as a water resistant lining as described in E3/AS1 but is not suitable where the code calls for impervious linings such as shower walls and walls over baths. Refer also to the GIB® Wet Area Systems Specification and Installation Manual.

Where wet area floor to wall junctions require covered vinyl or waterproof membranes and tiles return up the wall, it is best practice to place Climateline® sheets horizontally to avoid vertical jointers.

To prevent moisture entering the cavity, a silicone sealant should be applied to all joints and penetrations as shown below.



PHYSICAL PROPERTIES

Properties ClimateLine® Panels	Typical Value	Test Method
Reaction to Fire	Group 1S (New Zealand} Group 1 (Australia)	Cone Calorimeter ISO 5660
Density	10mm Standard 7.0 kg/m ² 13mm Standard 8.7 kg/m ² 10mm Aqua 7.8 kg/m ² 13mm Aqua 10.7 kg/m ²	
Hygiene	Pass	NZBC Clause G3.3.2 Food preparation & prevention of contamination
Abrasion Resistance	1000 cycles	AS/NZS1580.403.2
Steam and Water Resistance	Coating unaffected after 24 hours exposure	
Resistance to household Cleaners	Pass	ASTM D3023
Resistance to Washing	Excellent. No change in gloss after repeated wash cycles	AS/NZS 1580.459.1
Hardness	H	Pencil Hardness
Sustainability	All standard grade plasterboard is Green Tag Certified to Green Rate Level A	Green Tag
	The Décor Shield powder coating is VOC free and non-hazardous	VOC Free

CARE AND MAINTENANCE

The powder coated surface of ClimateLine® is hard wearing and easily cleaned with warm soapy water and a soft cloth.

When stubborn stains or marks need to be removed use 'Diggers Wax & Grease Remover', available from Bunnings.

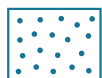
Do not use: Solvents such as white spirits, paint thinners, petrol, MEK, toluene or citrus based household cleaners that may mark or soften the coating.

HANDLING



Cutting

Score and snap ClimateLine® panels using a builders knife as you would when cutting traditional plasterboard. Cut through the coated face first.



Holes and cutouts can be made using key hole saws and typical methods.

Sand the back face of the cut edge if necessary to ensure a clean fit into the trim.



Repair and Touch-up

Clean marks, dust, stains etc with warm soapy water and a soft cloth or for stubborn stains and marks use Diggers Wax & Grease remover available from Bunnings stores.



Minor scratches can be touched-up and holes or dents patched and repainted.

Refer to ClimateLine Repair Instructions at: www.climatesurfaces.co.nz/ClimateLine



Storage

ClimateLine® panels must be stored in dry interior conditions on a minimum of four bearers across the full width of the sheet keeping the sheets flat at all times. Avoid leaning sheets against walls.



Store sheets where construction traffic and construction activity will not damage sheets.



Handle with Care

Treat sheets as a finished product and avoid dragging sheets across other surfaces which can mark the powder coating.



Use two people to lift and install the panels.



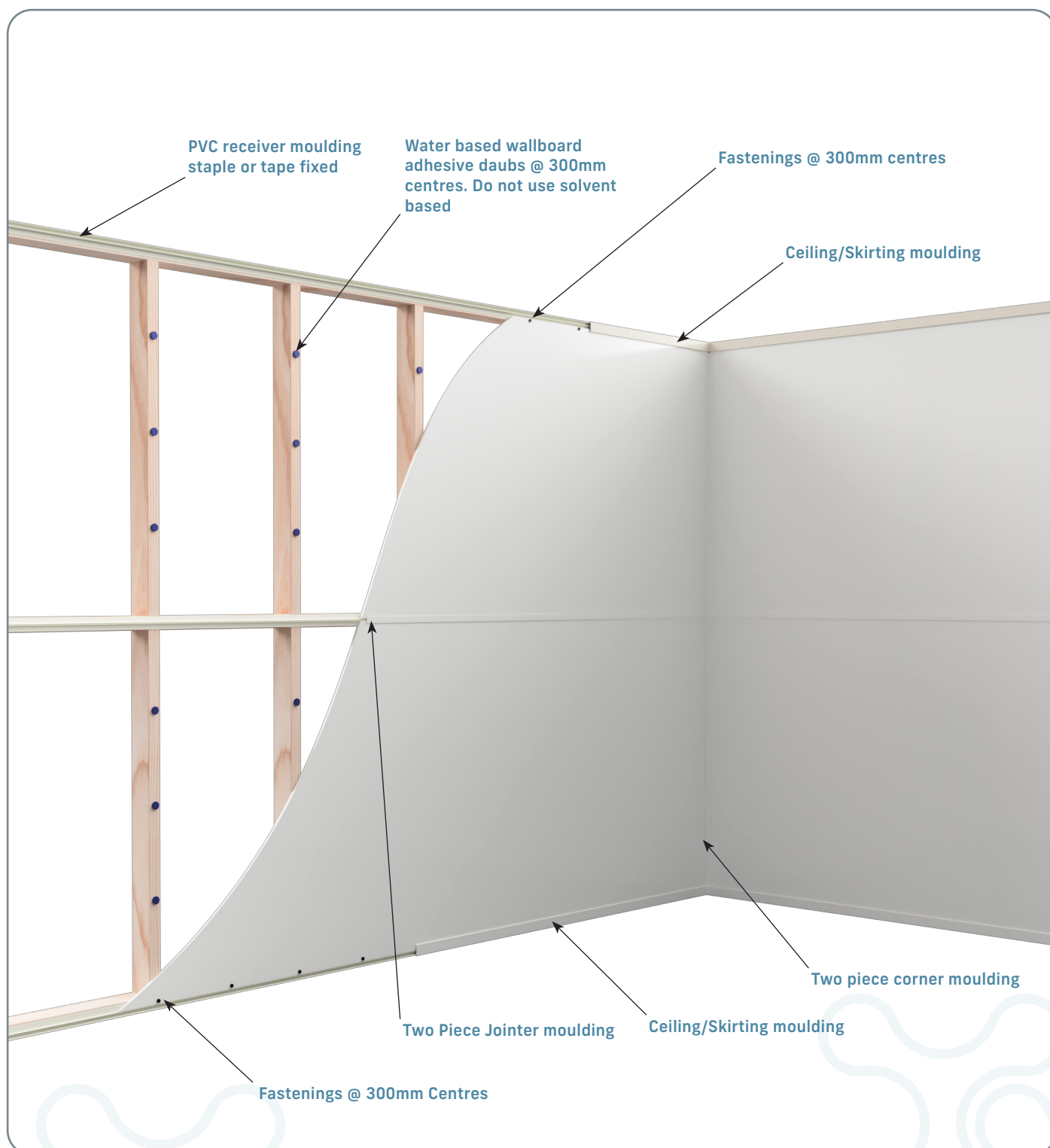
When lifting panels, first tilt the panel up on the side and then lift to prevent any damage from flexing, especially with longer sheets.



Wear gloves when installing to prevent marks from dirty hands and to reduce the cleaning required upon installation.

GENERAL INSTALLATION

Typical Horizontal or Vertical Glue Fix Timber Framed Wall Glue Fixed



GENERAL INSTALLATION

Installation Direct to Steel or Timber Framing

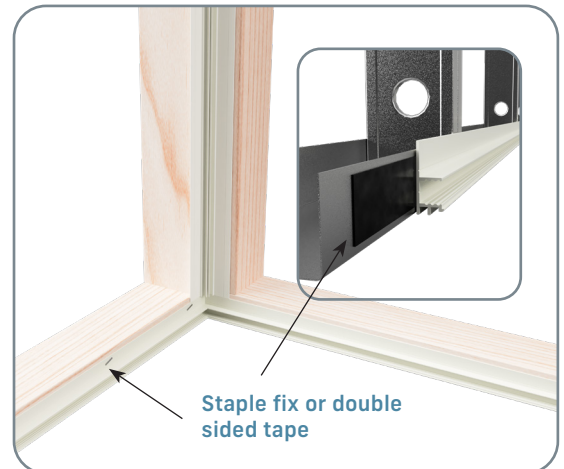
Substrate

Ensure framing and substrate are sound and ready for lining and that it meets all requirements of the building code.

STEP 1

Cut and fix all wall perimeter (PVC) receiver mouldings in place by either stapling for timber framing, or by double sided tape or for steel framing.

Care should be taken to accurately place the top and bottom mouldings hard to the ceiling and floor. Perimeter mouldings refer to, floor, ceiling and all corner mouldings.



STEP 2

Start installing the sheets from an internal corner working around the room. To minimize creep, where walls are more than 6 metres in length, start in the middle of the wall.

Fix sheets at the top and bottom plates with 6g x 25mm Scavenger Head @ 300mm centres positioned so that top and bottom mouldings will cover the screw heads. For 13mm sheets 6g x 32mm screws should be used

Fix the body of the sheets with either water based wallboard adhesive or Velcro strips (see previous pages)

In order to maintain sufficient cover of mouldings, care needs to be taken to accurately cut sheets to size and not to damage sheet edges.



Step 3

When sheets are all in place, the powder coated aluminium cover moulds can now be cut and installed.

To avoid mitre joints start with exterior corner mouldings and then install the top and bottom mouldings. Other vertical or horizontal mouldings can now be cut to length and installed.

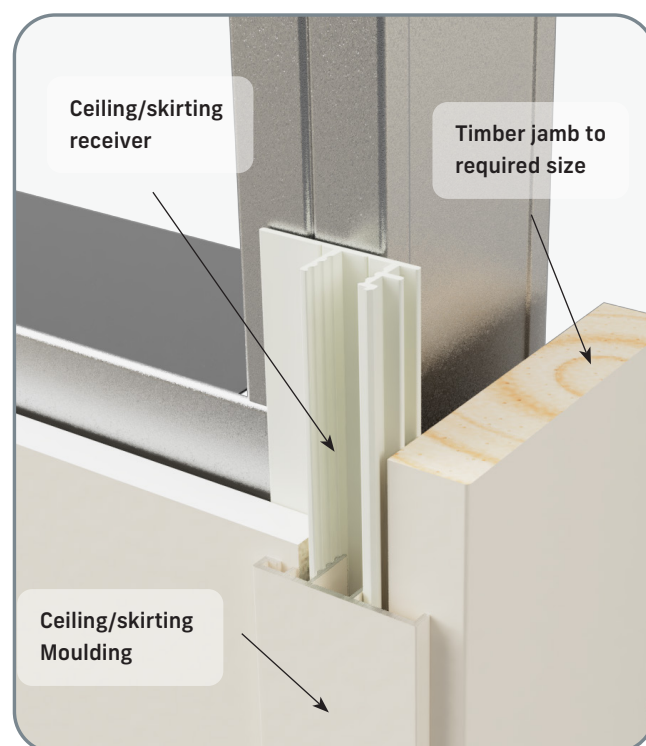
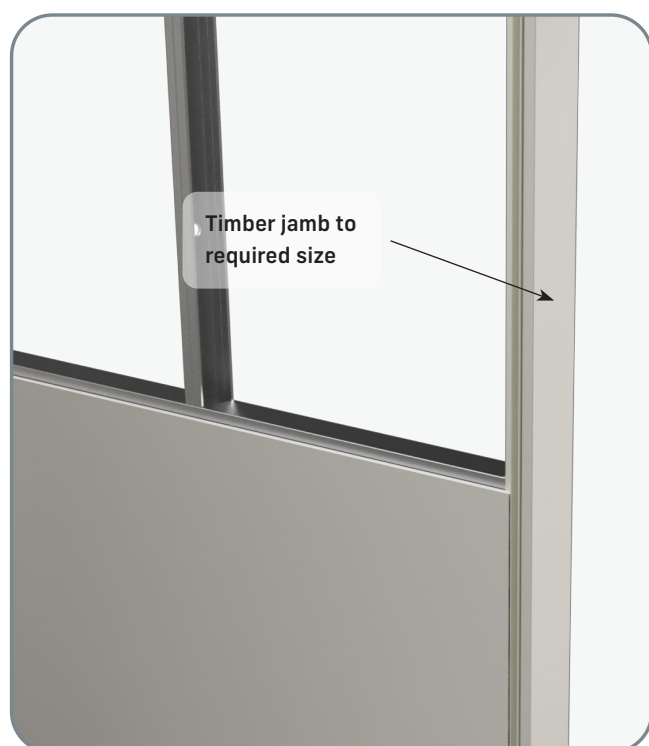
For wet areas or hygiene situations the cover battens should be bedded on silicone sealant.



GENERAL INSTALLATION

Finishing Doors And Windows

Finishing around doors and windows can be simply finished with a timber jamb and utilizing the two piece ceiling and skirting mould. This will generally require jambs sized to suit.



REPAIR & REPLACEMENT

Repair

If damage does occur to the coating or plasterboard then repair is possible and a quality finish is relatively simple to achieve using the ClimateLine® repair method and specially formulated matching paint.

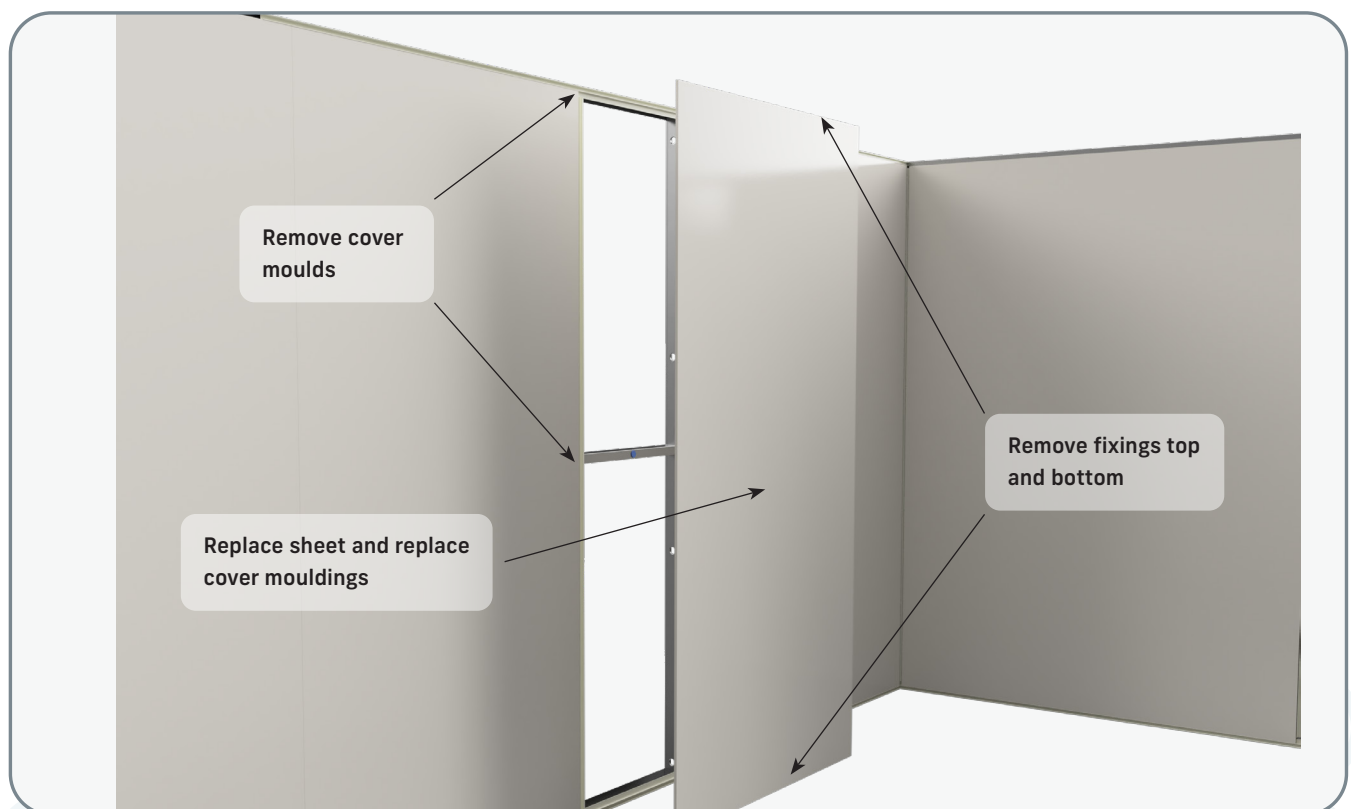
Full instructions to make a repair are available for download from:

www.climatesurfaces.co.nz/ClimateLine

Replacement

Because of the use of the unique two part jointers and mouldings the ClimateLine® system allows for simple and fast replacement of single sheets should they be damaged and full demountability should partitions need shifting or full removal.

The sheets are quickly and easily removed after the cover mouldings have been removed. Sheets can be removed individually and replaced with colour matched sheets without the requirement of any wet trades or painting.



HEALTH AND SAFETY

When machining or cutting ClimateLine® sheets, including drilling, sawing and cutting, an appropriate dust mask should be worn along with non-fogging safety glasses and gloves.

To avoiding cuts and splinters from sharp edges of aluminum moldings, suitable protective gloves should be worn. Use aluminum cutting tools only. Do not lift panels on your own and use appropriate handling and lifting techniques and equipment.

The Gib plasterboard used for ClimateLine® has been given Declare Red List free certification, meaning the products meet strict materials standards and are non-toxic.

TECHNICAL SUPPORT

Further information and technical support is available by contacting Climate Coatings Ltd.

Please ensure that you are using the latest publication by downloading the latest Technical Manual from www.climatesurfaces.com/ClimateLine



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