cedar SCREEN

board&batten

CODEMARK™
CMA-CM40129

Cedarscreen Board & Batten Weatherboards

Mention `Board and Batten' and people will think of simple ply cladding with timber battens to hide the joints. There is another way though – the more traditional method, using wide solid timber boards and matching battens. This offers a high quality, resilient and elegant alternative to an otherwise utilitarian choice.

Introduction

As solid timber becomes more accessible or perhaps because end users are beginning to take a longer view and recognize the need for quality in cladding systems, Rosenfeld Kidson's traditional Board and Batten is making a resurgence. This is particularly apparent in the South Island, as architects there draw on an established traditional aesthetic that suits the large scaled and demanding landscape they find themselves in.

180mm wide boards laid directly over framing with an 8mm gap, which is then sealed with a batten, offer a high risk matrix rating that can deal with surprisingly harsh weather conditions.

The generous and carefully designed weather grooving used by Rosenfeld Kidson, and a setout allowing for the sometimes staggering expansion and contraction that New Zealand's changeable climate can produce, allows for an extremely robust and durable cladding.

Not only that – Board and Batten applied using traditional materials and Rosenfeld Kidson's proven systems, provides a superbly elegant yet earthy appearance that is wholly in sync with a sophisticated rural New Zealand aesthetic – and equally at home in an urban context.

Combined with a wide range of Woodoil finishes, Board and Batten offers a further palette of texture for architects to work with wherever they may be. One of the South Island's best kept cladding secrets is now available throughout the country.

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General:

Cedarscreen Board and Batten is an external vertically fixed wall cladding system. The system uses Rosenfeld Kidson Board and Batten weatherboards. Vertical weatherboards and is finished with a uniquely formulated factory applied WoodOil.

Compliance:

Cedarscreen Board and Batten is a compliant direct fixed wall cladding material with fixing methods in accordance with Acceptable Solution E2/AS1. Vertical Board and Batten weatherboards shall be fixed directly to the wall frame, in accordance with the risk categories as shown in Clause 3.0 and Tables 1, 2 and 3 E2/AS1.

SPECIES

Western Red Cedar:

Western Red Cedar (*Thuja plicata*) weatherboards are compliant for above ground use in accordance with New Zealand Standard NZS 3602: 2003 Timber and Wood-based Products for use in Building and when fixed above ground exceeds the minimum 15-year durability requirement.

Maintenance:

Maintenance shall be carried out as necessary to achieve the required durability of materials, components and junctions. The extent of necessary maintenance is dependent on:

- Type of cladding and components used.
- Position of cladding and components on the building.
- Geographical location, (recoating with stain or WoodOil will be required more frequently on more exposed northern and western faces).
- Manufacturer cleaning and recoating schedules .

Regular maintenance is essential to ensure the performance requirements of the NZBC are met and to maximise serviceability of the system.

Annual inspection of the cladding material must be made to ensure that all aspects of the cladding system, including flashings and joints remain weatherproof. Any damaged areas or areas showing signs of deterioration, which could allow water ingress must be repaired immediately.

Regular cleaning (at least annually) of the stain or WoodOil coating is required to remove dirt or grime and fungal growth. Dirt and grime may be removed with the use of a soft brush, warm water and a light detergent cleaner.

Recoating with either a stain or WoodOil will be required throughout the life of the cladding system.

Check manufacturers product specific recoating requirements, as these may vary from product to product.

Rosenfeld Kidson recommends the use of Dryden WoodOil with all our exterior weatherboard systems. Recoating must be carried out approximately every 2-3 years in accordance with the manufacturer's instructions.

Ensure ends of weatherboards and cut or exposed edges are recoated during any repairs.

Sustainability:

Western Red Cedar is also favoured by conservationists as the forests of British Columbia, from where our cedar is sourced, are well-managed and certified as such. All our producers carry certification under SFI, CSA, FSC or PEFC. Please refer to the following site for more information regarding this: www.wrcea.org/environment-sustainability/intro.htm.

Sizes & Grades:

Our weatherboards are available in 19mm, 28mm and 39mm thicknesses and cover widths range from 58mm up to 203mm.

The standard weatherboard length range is 1.83m to 4.88m, averaging 3.35m. Selected and longer lengths are available on request.

- For use as vertical shiplap or Board and Batten Rosenfeld Kidson PC1 grade Western Red Cedar is recommended. Any defects or knots should be removed prior to installation. Weatherboards shall be continuous in length between each storey height.
- It is good practice to pre-order weatherboards in the required selected length spread. On-site measuring should confirm the length spread required.

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Cedarscreen Board & Batten Weatherboards Continued

MANUFACTURING:

Profiles:

- Standard profile range RK120 to 123.
- Architectural profile range RKA .

Profiles are manufactured to meet the requirements of E2/AS1 (Acceptable Solution). This is achieved with compliance to Clauses 9.4.1 and 9.4.1.1 of E2/AS1 and Clause 9.4.1.2 E2/AS1 vertical shiplap weatherboards. Profiles shall be as given in NZS 3617 or Branz Bulletin 411.

Accessories:

Fascia:

Western Red Cedar fascia.

RK69 135x18.5mm, supplied in lengths 3.9m and longer.

RK70 180x18.5mm, supplied in lengths 3.9m and longer.

RK71 135X28mm, supplied in lengths 3.9m and longer.

RK72 180x28mm, supplied in lengths 3.9m and longer.

RK73 230x28mm, supplied in lengths 3.9m and longer.

Internal and External Corners:

External: Western Red Cedar RK123 or RK91 and RK92, 18.5mm thick boards in widths of 69mm and 90mm, supplied in lengths 2.4m and longer.

Internal: Western Red Cedar RK123 or RK91 and RK92, 18.5mm thick boards in widths of 69mm and 90mm, supplied in lengths 2.4m and longer.

Mouldings:

Western Red Cedar eaves mould RK32 40x27mm, supplied in lengths 2.4m and longer.

Western Red Cedar bevelled cornice RK7 30x18x10mm, supplied in lengths 2.4m and longer.

Scriber:

Western Red Cedar scribers RK12 40x17mm and RK13 40x10mm supplied in selected lengths.

Finish:

- BSF Band Sawn Face.
- DF Dressed Face or DFS Dressed Faced Sanded (it is recommended dressed face weatherboards are sanded prior to applying coating products).

Moisture Content:

Western Red Cedar panels are delivered to site air-dried to between 16% and 18% moisture content.

FactoryOil:

This is a specifically designed spray process for applying WoodOil to our weatherboards. Dryden WoodOil™ is applied prior to delivery to all faces of the weatherboard profile. This uniquely formulated product will increase the durability and performance of the cladding during its service life. Factory coating to all faces not only enhances the visual effect of Cedar but when maintained to manufacturer specifications, it also greatly reduces moisture penetration, limiting excessive hygroscopic movement.

At time of order:

- Check dressed faced weatherboards are face sanded, if being factory oiled.
- Sign off profile confirmation check sheet.
- Sign off colour confirmation check sheet.
- Check pre-order of a minimum 4ltr of Dryden WoodOil for sealing cut or exposed edges.

Handling & Storage:

Care should be taken to protect Western Red Cedar from the elements. All plastic wrapping, timber gluts, packers and strapping should remain intact until stored in a suitable location.

Packets of vertical weatherboards should be stored a minimum 100mm clear from the ground at all times. Storage should be in a dry enclosed location where temperature and humidity are kept relatively stable i.e. dry, dust free and free from sub trade contamination.

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FRAMING:

Framing:

- All framing must comply with NZS 3604.
- Framing dwangs shall be at a maximum 400mm centres.
- Vertical Western Red Cedar cladding is fixed to dwangs at a maximum 400mm centres.

Wall Underlays:

- Must comply with Table 23 and Clauses 9.1.5 – 9.1.7 E2/AS1.
- Flexible flashing tape as per Clause 4.3.1.1 E2/AS1.

Flexible Wall Underlays:

- Flexible wall underlays shall be in accordance with Table 23 E2/AS1.
- Flexible wall underlays shall be fixed in accordance with Clause 9.1.7.1 E2/AS1.
- Be run horizontally.
- Have upper sheets lapped over lower sheets to ensure that direction of lap will allow water to be shed outside of the wall underlay.
- Be lapped not less than 75mm at horizontal joints.
- Be lapped not less than 150mm over studs and vertical joints - see manufacturer specifications for taped joint options.
- Flexible wall underlay as per Clause 9.1.5 shall be cut and dressed into all sides of openings as per figure 72A and 72B E2/AS1.
- Flexible flashing tape shall be applied to head and sill framing as shown in figure 72A and 72B E2/AS1. Flexible tape shall comply with parts 3.2 and 4 of ICOB Acceptable Criteria AC 148 and be compliant with the wall underlay.
- Extend 35mm below bottom plate or bearer.
- Be restrained from bulging - use polypropylene tape at 300mm centres tape shall be fixed horizontally and drawn taut refer Clause 9.1.8.5 E2/AS1.

Rigid Wall Underlays:

- Are required in Extra High wind zones refer Table 3 and Table 23 E2/AS1.
- Where walls are not lined such as gable ends, attics spaces an air barrier compliant to Table 23 E2/AS1 shall be fixed to framing prior to installation of cavity battens. For attached garages, underlays to Clause 9.1.3.4 E2/AS1.
- Rigid wall underlays shall be fixed in accordance with Clause 9.1.7.2 E2/AS1.
- Be a minimum 6mm fibre cement sheet or 7mm H3.2 plywood.
- Be installed with sheet edges fixed over solid framing.
- Be over-fixed with a flexible wall underlay from Table 23 and installed as in Clause 9.1.7.1 E2/AS1. Note: some proprietary systems may not require the addition of a flexible underlay.
- Flexible wall underlay as per Clause 9.1.5 shall be cut and dressed into all sides of openings as per figure 72A and 72B E2/AS1.
- Flexible flashing tape shall be applied to head and sill framing as shown in figure 72A and 72B E2/AS1. Flexible tape shall comply with parts 3.2 and 4 of ICOB Acceptable Criteria AC 148 and be compliant with the wall underlay.
- Be finished flush with the underside of bottom plate or bearer.

Air Seals: As per Clause 9.1.6 E2/AS1.

- Windows, doors and other penetration openings shall be provided with flexible air seals to minimise the risk of airflow carrying water into the building wall.

Ground Clearance:

As per Clause 9.1.3 and Table 18 E2/AS1.

- At ground level the base of the cladding material shall overlap the concrete slab a minimum 50mm (Note: direct fixed only wall cladding shall be offset horizontally 6mm to avoid capillary action). The bottom edge of the cladding material shall finish 100mm above a paved surface or 175mm above an unpaved surface.

Penetrations:

As per Clauses 9.1.9, 9.1.9.1, 9.1.9.2, 9.1.9.3 and figure 68 E2/AS1.

Flashings:

As per Clause 4.0 E2/AS1.

- Flashing material selection shall comply with Table 20 E2/AS1 and meet the compatibility of Tables 21 and 22 E2/AS1. Flashings shall have a minimum 50mm cover and have hem folded edges as per Clause 4.5.2 E2/AS1.
- Ensure material thicknesses are as per the requirements of Clause 4.0 E2/AS1 prior to ordering.
- Internal and external back flashings refer figure 79 and Clause 9.4.4.5 E2/AS1.
- Aluminium flashings to be powder coated to all faces and edges.

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Fixings:

As per Table 24 E2/AS1.

Board fixing

- Rosenfeld Kidson pentagon head annular grooved nails 60x3.2mm, stainless steel 316 or silicon bronze.

Batten fixing

- Rosenfeld Kidson pentagon head annular grooved nails 75x3.2mm, stainless steel 316 or silicon bronze.

Windows & Doors:

The weatherboard system relies on the joinery meeting the requirements of NZS 4211 for the relevant Building Wind Zone or wind pressure.

- Shall be in accordance with Clauses 9.4.6 to 9.4.7 E2/AS1.
- Window profiles to be selected to achieve cover shown in details.
- Wall underlays to wall openings as per Clause 9.1.5 E2/AS1.
- Sill support bar required conforming to EM6 and Clause 9.1.10.5 refer figure 72B E2/AS1.
- For Very High and Extra High wind zones seal head flashing to window flange as per figure 71b E2/AS1.

Head Flashing:

- Head flashings shall be fixed with a minimum 35mm cover flashing upstand with additional flexible underlay or tape overlapped over the flashing upstand.
- Extra High wind zones require a minimum 75mm cover flashing to head flashing upstand.
- Ensure head flashings have a minimum 15 degree fall with a 5mm gap between head flashing and weatherboard refer figure 84 (a) E2/AS1.
- Head flashings shall be sealed a minimum 50mm at both ends of the flashing, head flashing shall extend to provide 30mm cover refer figure 84(c) E2/AS1.
- Window sill joiner cover shall be a minimum 8mm at the sill and 10mm minimum at jambs. Jambs shall be scribed or apply foam bond breaker and continuous protective sealant the full length of the jamb line refer figure 84 (c) E2/AS1.

Air seals as per Clause 9.1.6 E2/AS1.

- Ensure an air seal is provided with a flexible air seal to minimise the risk of airflows carrying water into the building wall. The air seal shall be provided between the reveal or frame and the wrapped opening as per figure 81 E2/AS1. Be installed over a closed cell polyethylene foam (PEF) backing rod.
- And (i) self-expanding polyurethane foam or (ii) sealant complying with clause 9.1.6 (a) and (b) E2/AS1.
- Temporary packers shall be removed after fixing.

FIXING VERTICAL WEATHERBOARDS

Limitations

Cedarscreen Vertical must only be installed by a registered LBP (Licenced Building Practitioner).

Fixing methods shall be in accordance with Clause 9.4 E2/AS1.

- Check weatherboards are factory oiled on all surfaces including weather grooves prior to deliver.
- Apply WoodOil to all cut or exposed edges prior to installation.
- Ensure on-site provisions are appropriate allowing for good storage and working space.
- Ensure all timber products are free from sub-trade and climatic contamination during the building process.

Fixing Process:

Start the fixing process from either an internal or external corner. Establish an accurate measurement between the starting corner and finishing point working out an even board set out taking into account all associated junctions including window jambs. This will ensure full width boards are allowed for and trimmed into window jamb to head junctions.

- Jamb to head and sill junctions, ensure weatherboards are full width and continuous in length.
- Ensure vertical weatherboards are continuous in length between inter storey heights.
- Check weatherboard length spread and use appropriately to suit each cladding face.
- Cut weatherboards to length ensuring a minimum 50mm overhang of the bottom plate.
- Weatherboards shall be pre-drilled prior to fixing with a single fixing to each fixing point.

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Fixings:

Weatherboards shall be fixed through the wall underlay to the framing in accordance with Table 24 E2/AS1.

- Fixings shall be hand driven.
- Locate nails central to both Board and Batten.
- A minimum of 35mm fixing penetration into framing is required.
- Vertical Board and Batten weatherboards shall be fixed to dwangs at a maximum 400mm centres.
- Vertical boards shall be set out with an 8mm min negative gap between boards.
- Ensure the 9x6mm weathergrooves are lined up to form a 9x12mm weathergroove between Board and Batten profiles.

Windows and doors:

As per figure 84 (c) E2/AS1.

Corners:

- Internal corners shall be weatherproofed with hem folded 50x50mm back flashings using the RK123 or RK91 and RK92 to form internal boxed corners.
- External corners shall be weatherproofed with hem folded 50x50mm, back flashing using the RK123 or RK91 or RK92 to form external boxed corners.

Finishing:

- Apply the finishing coat of WoodOil. Use Dryden WoodOil™ as per manufacturer specifications.

Recommended coverage rates for onsite application of Dryden WoodOil™. (These are indicative rates and coverage may vary depending on site conditions).

- Recommended coverage rate for BSF 8-10 m2 per ltr.
- Recommended coverage rate for DF 10-12 m2 per ltr.

Dryden WoodOil™ is deep, migrating oil that not only adds colour but enhances the timber's natural properties, protecting surface fibres and stabilising the timber's cell structure. To ensure an optimum performance level is achieved your cladding should be annually cleaned and maintained in accordance with Dryden manufacturer maintenance schedules.

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