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Operal and Cedral



Timber & Builders Merchants

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Operal and Cedral

Marley Eternit's Operal and Cedral ranges complement each other perfectly to offer creative, integrated and cost-effective external cladding solutions for buildings.

Sharing the same colour range, but offering different textures and module shapes and sizes, woodgrained Cedral planks can be used to contrast the flat, lightly textured surface of Operal.

Equally, both can be used on their own merits, with Operal being easy to work and handle, and ideal for both residential and larger cladding projects where a flat, clean and crisp finish is needed.

Cedral is an ideal low maintenance alternative to timber planking in residential projects without any loss of visual impact.



Cedral Weatherboard

fixing information

Cutting and handling

- Use either a fine tooth hand saw or a power saw. Make sure the blade is tungsten carbide tipped or diamond dusted.
- Always support both ends of the board during cutting, to avoid breakaway.
- If using a power tool, wear safety glasses and an approved dust mask or respirator.

Fixings

Recommended nails:

stainless steel ring shank 2.8x50mm with 7-10mm dia. head

Stainless steel screws:

minimum 4.5x50mm

Fixing distance from edges:

Vertical edges 15mm

Horizontal edges 20mm

Corners and trims

For the neatest detail at corners, Weatherboard can be close mitred. Alternatively, they can be finished using either fibre cement two-piece corner trims. Other metal or plastic trims, or wooden corner posts can also be used.

Start installation with inside and outside corner trim pieces. Length of trim should extend full height of cladding. Starting at a corner or butt joint, fasten Weatherboard from one end to the other, not from the centre outward.

Preparation



- Ensure a straight, flat wall surface.
- Use a secure framing system, which meets all relevant Building Regulations. We advise you to nail or screw the Weatherboards to vertical battens. These should be at least 50mm wide, spaced at a maximum 600mm intervals.
- Install a 30x10mm tiling fillet at the bottom of the vertical battens allowing at least 150mm between the bottom edge and ground level.
- Apply the first row horizontally. The bottom edge of the first course should overlap the bottom edge of the tiling fillet by at least 3mm.
- Level the first plank and then fasten with screws or nails. Space these at 20mm from the top of the board.
- Overlap successive courses by 30mm. Ends of planks are butt jointed without overlap.
- Fix each board to at least 3 battens. If fixing to only 2 support points, reduce the spacing limit to 400mm.

Storage and handling

Care should be taken at all times when handling Weatherboard on the flat as it can break. While Weatherboard is stored on the flat, it should be fully supported along its full length on purpose-designed pallets. Manual handling is best carried out with the boards carried on their sides. When a single person is carrying a board, it should be turned on to its side before being lifted off the stack, and then the handler must keep their hands as far apart as possible to provide maximum support for the board.

Weatherboard should be stored on the pallets on which they are supplied and preferably inside. The temporary transportation hoods

should be removed to release any trapped moisture and the pack recovered with an opaque tarpaulin.

The boards should be protected from mud staining.

Efflorescence

Efflorescence, or 'lime bloom', is an occasional phenomenon that affects all cement-based products. It is temporary and in no way detrimental to the performance of the product.

The duration of the efflorescence depends on the quality and type of deposit and on prevailing conditions. Water, the element that is initially

responsible for its appearance, is also largely responsible for its disappearance. Rainwater, being slightly acidic, not only dissolves the deposit, but also mechanically removes it. Although it is impossible to state exactly how long efflorescence will remain, a period of suitably bad weather is usually sufficient to restore the Weatherboard to an even appearance.

Corners

There are two corner detailing options:

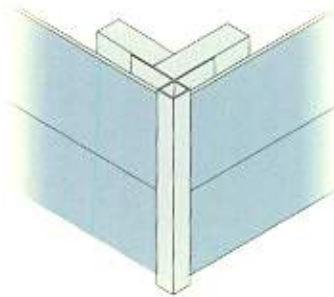
1. Eterspan fibre cement corners

75x25x3000mm

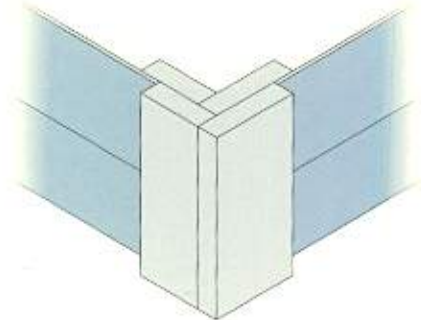
100x25x3000mm

2. Metal (internal and external)

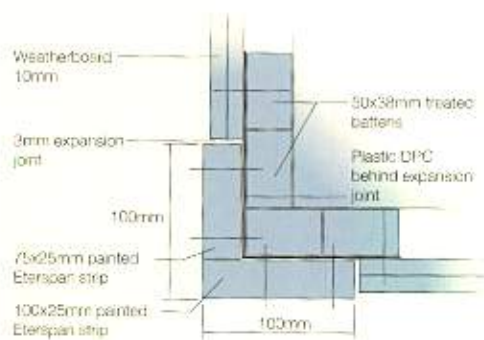
30x30x2500mm



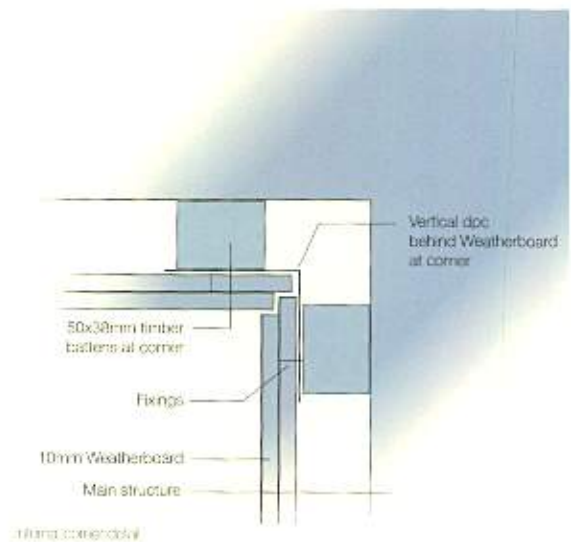
Typical metal detail



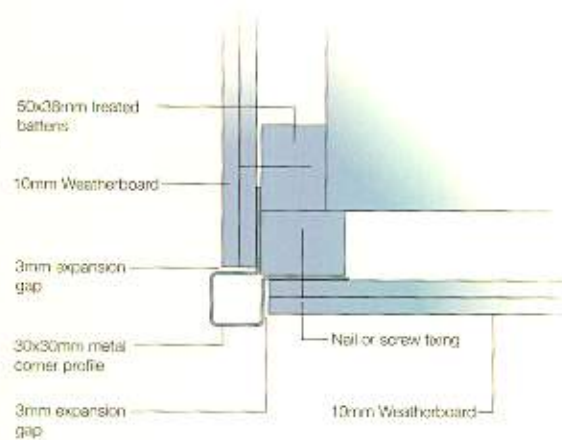
Typical fibre cement corner detail



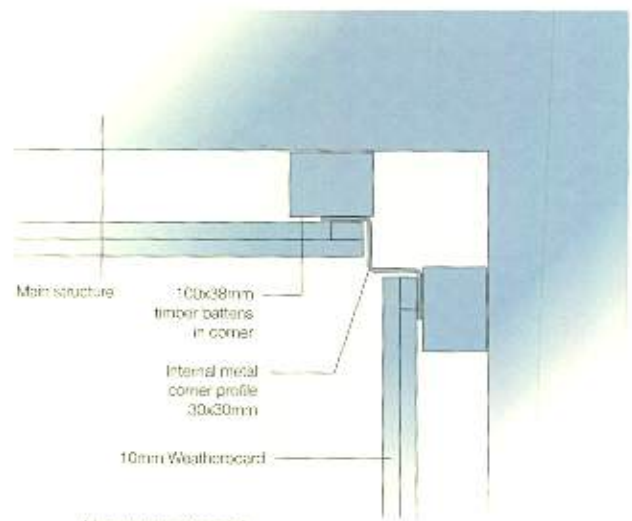
Eterspan external corner detail



Internal corner detail

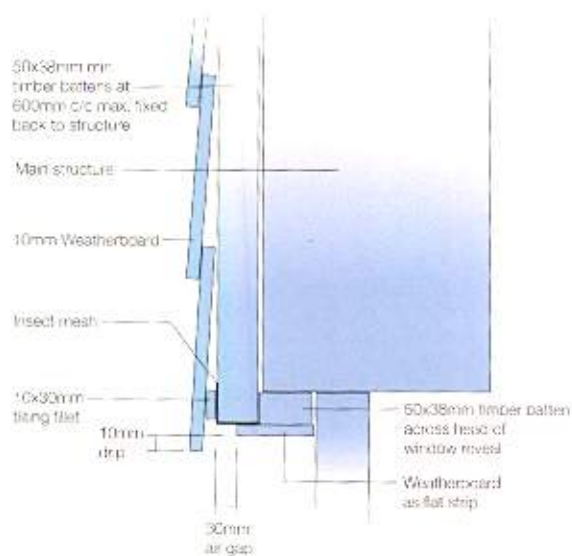


Metal external corner detail

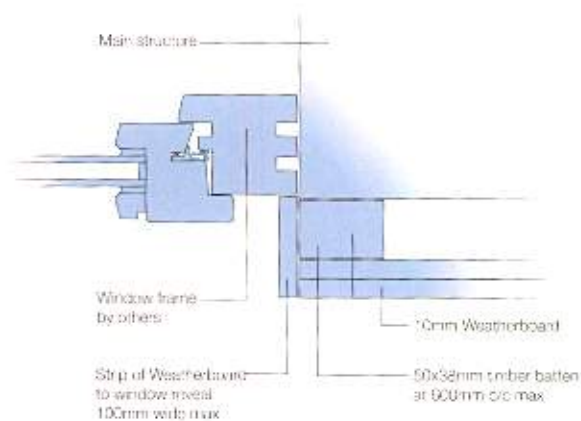


Metal internal corner detail

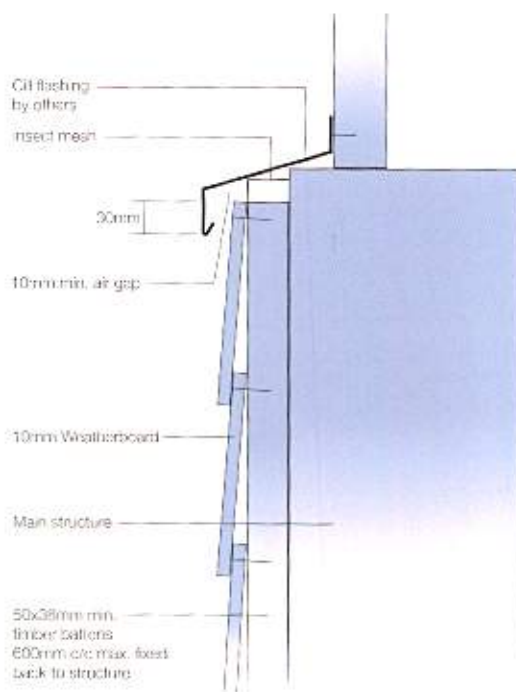
Cedral Weatherboard detailing



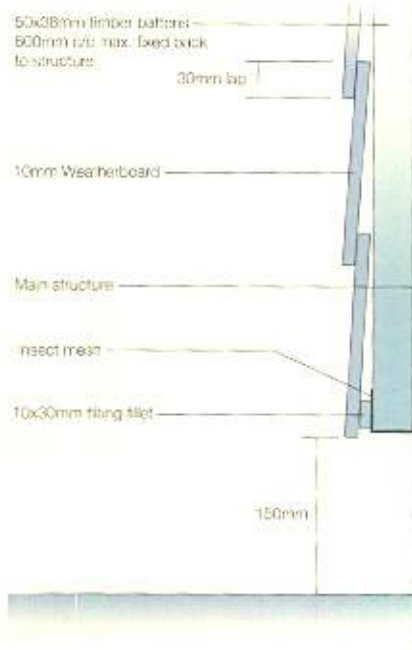
Window head detail



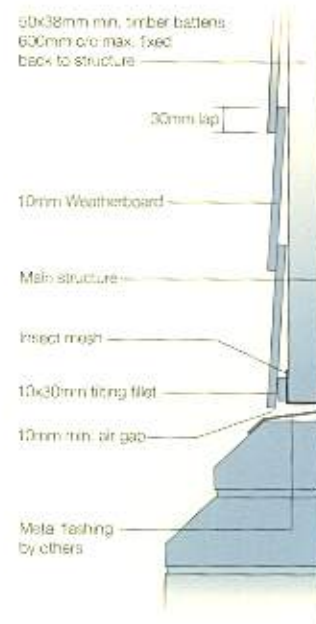
Window jamb detail



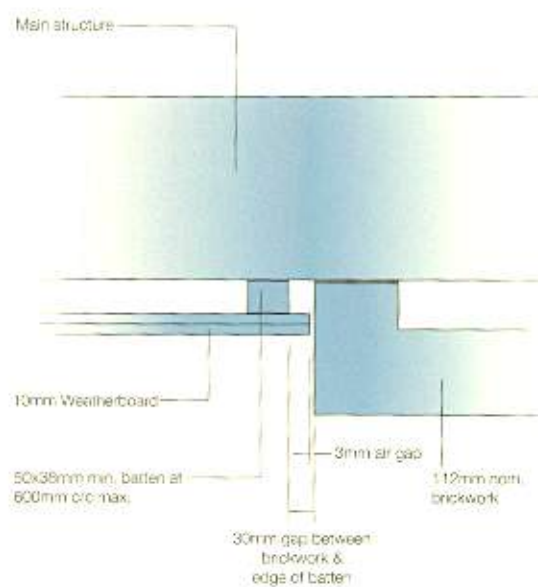
Window sill detail



Base detail



D/T track



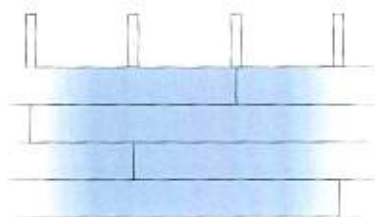
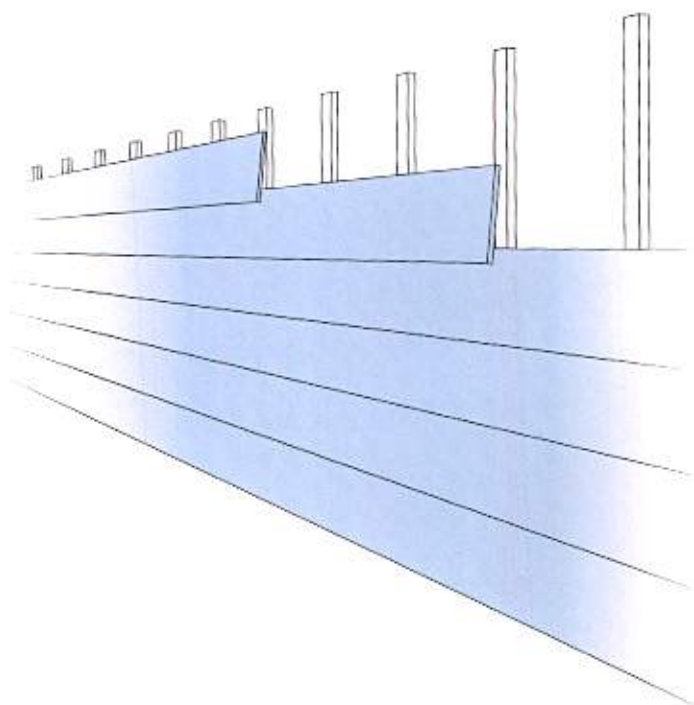
Cedral Weatherboard detailing

Fixing

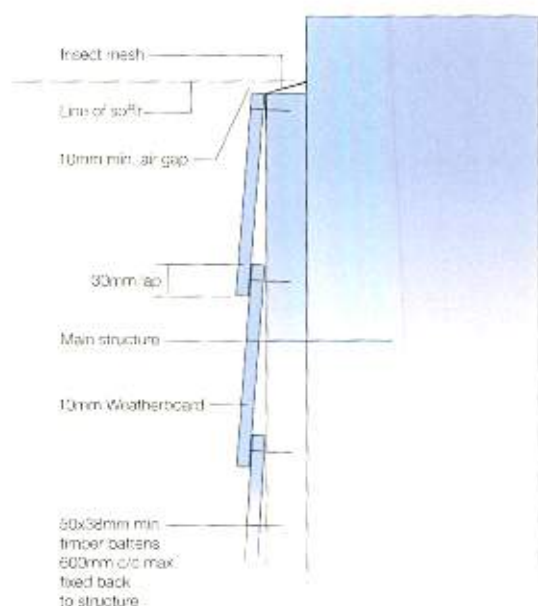
Weatherboard is fixed to timber battens in a 'ship lap' configuration using nails or screws.

It is fixed in the same way as timber weatherboarding.

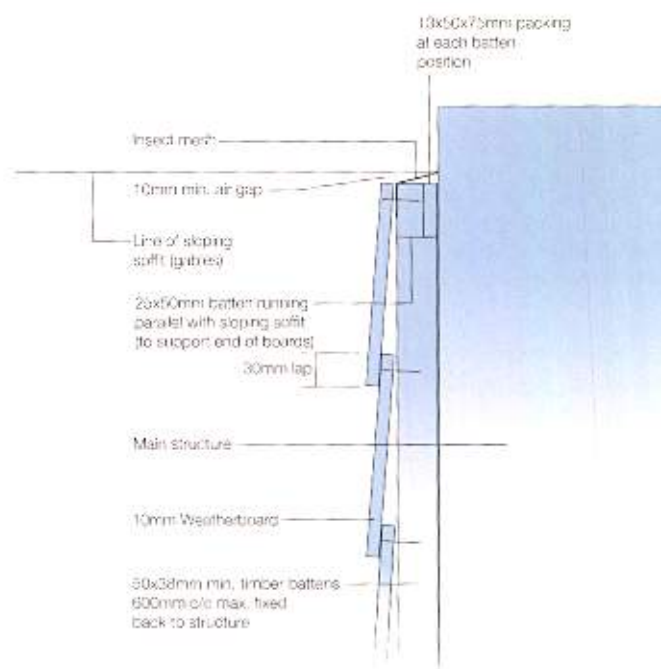
Fixings to be positioned 20mm from the top edge of the plank.



Joint detail



Soffit detail



Sloping soffit detail

Batten sizing

Screws

Panel joints min 100 x 38mm

Intermediate min 50 x 38mm

Larger battens are required if fixings are more than 25mm from the vertical edge.

High wind loadings or exceptional impact requirements

Should wind loading exceed $\pm 1.5 \text{ kN/m}^2$, please consult the Technical Advisory Service. Where exceptional impact levels to cladding panels can be anticipated, i.e. low level applications near pedestrian access, schools, leisure facilities etc., additional timber battens, between the fixing batten, can be incorporated to increase the panel's resistance.

Screw holes

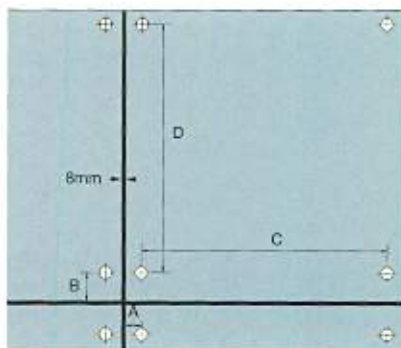
The pre drilled hole dimensions for the panels should be 4mm. However, the Oporal screw will cut its own hole.

Surface mounted features

Where other building features, i.e. signs, gutters, canopies etc. are to be fixed then additional batten work should be included and clearance holes must be provided through the cladding. Under no circumstances should cladding panels receive any additional structural loads.

Fixing centres

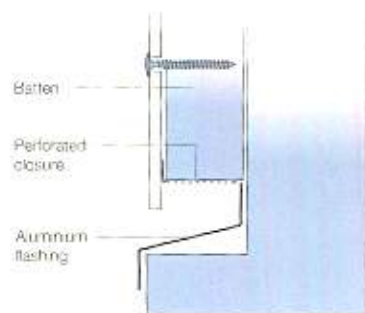
Dimensions mm	screw fixing	nail fixing
A	20	20
B	50	50
C	600	600
D	600	400
Maximum distance between battens		600mm
Minimum size of battens:		
at the vertical joint		100 x 38mm
at the central support		50 x 38mm



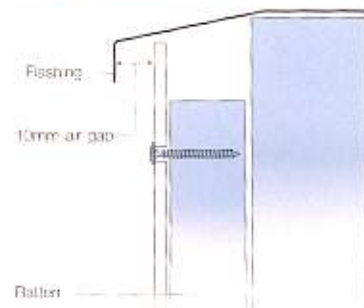
Maximum centres for 1.5 kN/m² windload.

Operal detailing

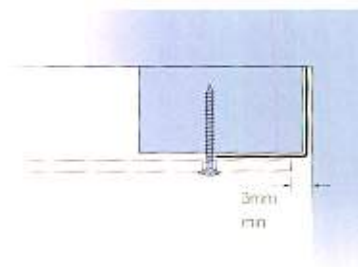
Base of cladding



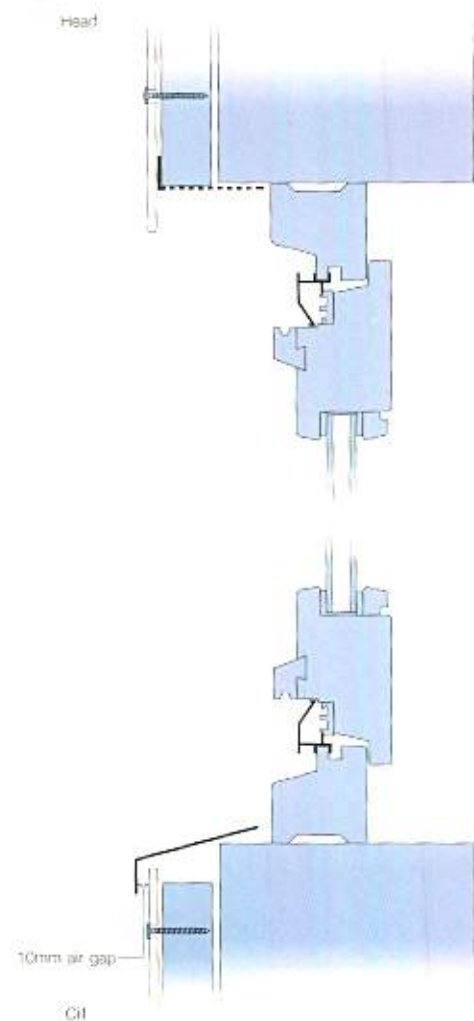
Top of cladding



Brickwork abutment

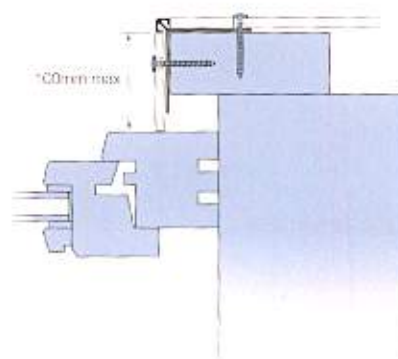


Typical window detail



Jamb

For all jamps in excess of 100mm, additional fixings are required.



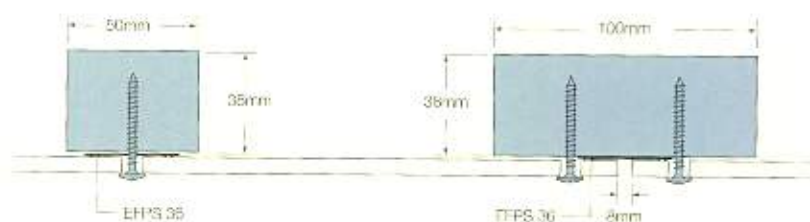
Vertical joint and intermediate panel fixing

Marley Elastil supply black flexible jointing strips to protect and close vertical joints.

EFPS 36mm – standard panel joints

EFPS 60mm – corner joints

Note: To ensure an even surface, an EFPS 36 should always be placed behind intermediate panel fixing.

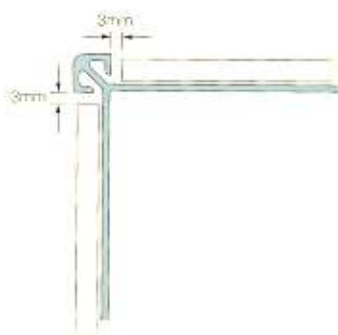


Corners

Corners are created using flat sheets and the appropriate jointing strips and corner profiles.

Universal corner profiles

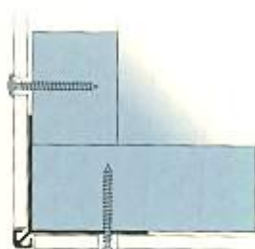
These are supplied black or mill finished as standard. Dimension 10,5mm.



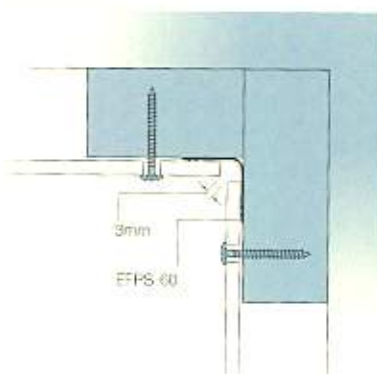
External corner

Universal corner profile – UCP

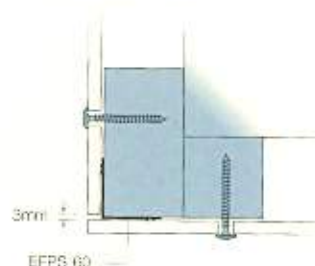
For good site practice it is necessary to vary the position of screw fixings to ensure that adequate penetration occurs. The example below illustrates a batten configuration employing 38mm deep battens and the respective screw positions.



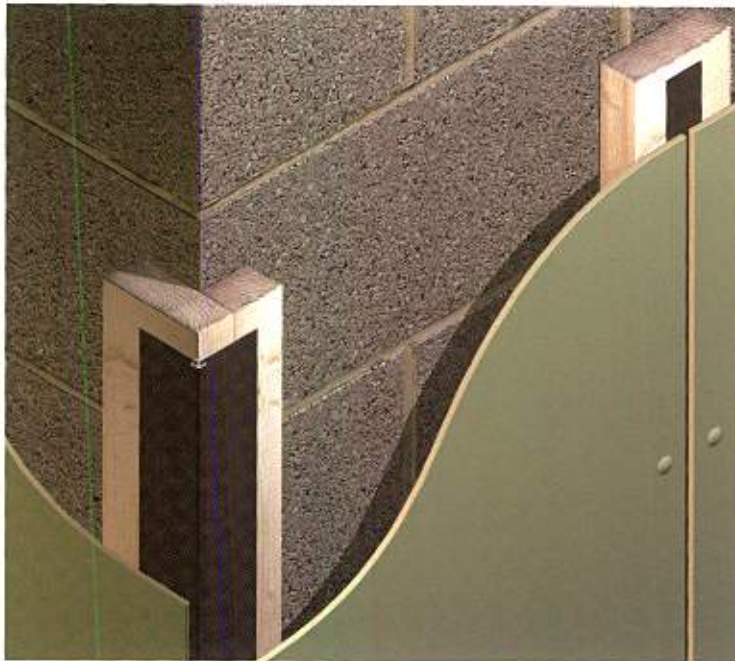
Open joint – internal



Open joint – external



Operal detailing



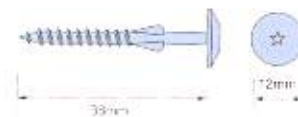
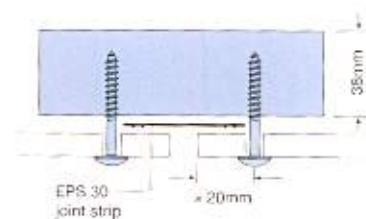
Fixing overview

For facade applications, Operal can be nailed or screwed to vertical timber battens using the rainscreen construction principle.

For small applications (e.g. fascias, soffits) the board can be installed with 3mm joints, but where large boards are being used, alignment is easier if an 8mm joint is maintained.

Timber protection

Timber battens can be protected against decay and insect attack in accordance with BS 5268, Part 5.



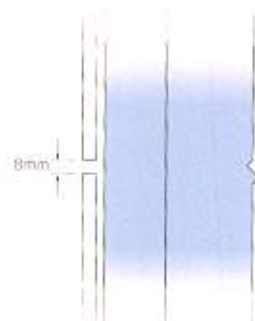
Operal colour matched screw

Horizontal joint alternatives

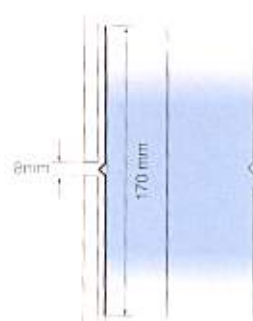
Horizontal joints may be formed using Mortek.

Exempt horizontal joint profiles (type HUP)

Alternatively an open joint detail may be used.



Horizontal open joint



Horizontal joint profile type HUP



Lilac Blue



Oriental Green



Red (Nearest RAL 3009 Oxide Red)



Atlas Brown



Brown (Nearest RAL 8024 Beige Brown)



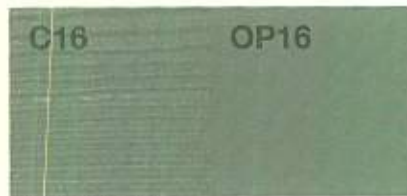
Black (Nearest RAL 9017 Traffic Black)



Dark Grey (Nearest RAL 7045 Telegraph)



Pine Green (Nearest RAL 6003 Fir Green)



Cevennes Green



Orange Brown (Nearest RAL 8026 Orange Brown)

Woodstain colours (Cedral only)



MW01 Pine



MW02 Light Oak



MW03 Cedar



MW04 Dark Oak



MW05 Walnut



MW06 Ebony

Operal and Cedral colour range

Operal only

Operal is available in the colours shown, except the Woodstain range, but with a flat, lightly textured surface.

Cedral only

Additional colours

Any factory approved BS colour can be supplied subject to minimum quantities.

Finishing

Weatherboard can be specified unpainted (Colour code C00) Natural, and finished on site using the appropriate product to achieve the intended look.

Opaque matt finish. Good quality exterior water based acrylic paint (Sikkink Supadur or Dulux Weathershield masonry paint). No primer necessary.

Gloss finish. Seal with an oil based alkali-resistant primer followed by two coats of good quality external paint (undercoat and gloss).

Translucent finish. Use water based woodstain, (i.e. Sikkers Celcol RL21 Plus).

Normal timber dyes or preservative treatments are not suitable.

Minimum order quantity

This product is sold in pallet quantities only.

Natural - 102 planks per pallet.

Standard colours - 144 planks per pallet.

Woodstain and bespoke colours - 72 planks per pallet (subject to availability and price surcharge).

Eterspan fibre cement corners

Available in all standard and bespoke colours.

Metal corners

Available as standard in white only.

C01

OP01

White - (Nearest RAL 9010) Irish White

C07

OP07

Cream White - (Nearest RAL 9011) Cream

C02

OP02

Boggy - (Nearest RAL 1015) Light Grey

C08

OP08

Sand Yellow - (Nearest RAL 1014) Yellow

C03

OP03

Grey Brown - (Nearest RAL 1019) Grey Brown

C09

OP09

Cochre - (Nearest RAL 1006) Green Grey

C04

OP04

Dark Brown - (Nearest RAL 9012) Grey Brown

C10

OP10

Blue Grey - (Nearest RAL 7021) Silver Grey

C05

OP05

Grey - (Nearest RAL 7047) Teal Grey

C11

OP11

Beige Yellow - (Nearest RAL 1001) Beige

C06

OP06

Grey Green

C12

OP12

Lavender Blue - (Nearest RAL 5014) Pigeon Blue



Domestic

In housebuilding, the material enables specifiers to achieve a heritage style look, adding to the kerb appeal. In conservation areas where plastic materials are often out of the question, the convincing timber-like appearance of Weatherboard is designed to meet strict planning requirements.

Commercial

Typically, Weatherboard can be used to recreate or achieve a weatherboarding type or 'colonial' architectural effect such as that often found in regional vernacular architecture.

It can also be used to bring a contrasting planking effect to predominantly brick-clad or flat-clad elevations. The material can be employed on small or large scale areas of a building to break up the repetition of elements, pick up material themes, or create subtle interplays of colour and shape. Not only does Weatherboard satisfy popular, current life cycle costing strategies, it also solves the maintenance problem associated with comparable materials.



Refurbishment

In Local Authority housing, Weatherboard can be used to add value to new build schemes, or for refurbishment purposes, where there is a requirement for an effective form of overcladding or remedial cladding to replace equivalent but defective materials.

Weatherboard can be used to replace like materials such as timber planking, PVCu sidings and similar materials. It can add interest to gable walls, adorn dormers, clad window areas that have become an eyesore, give garages a make-over, beautify barn conversions. The use of the material is limited only by your imagination.

Standards

The technical properties of Weatherboard sheets are in accordance with the prescriptions of BS EN 12467:2004, Category A, Class 2.

Manufacture

Weatherboard is an autoclaved fibre cement plank manufactured from a mixture of cement, organic fillers and water.

Availability

In order to give the best possible service, the most popular colours are kept in stock. Other colours are available on longer lead times.

Dimensions

Length	3800mm
Width	190mm
Thickness	10mm
Weight/board	9.9kg

Properties (air dry)

Installed weight	17.1kg/m ²
Density	1300kg/m ³
Bending strength	
Longitudinal	23N/mm ²
Transverse	11N/mm ²
Modulus of elasticity	
Longitudinal	7500N/mm ²
Transverse	5500N/mm ²
Expansion from dry air to saturated	1.70mm/m
Thermal conductivity	0.21W/mK
Reaction to fire:	
Building Regulations	Class 0
EN 13501-1	A2-s1-d0

Cedral Weatherboard product data



Advantages

- Excellent aesthetics
- Resistant to rot and maintains its looks
- Low maintenance
- Easy to install
- Use in the same way as wood
- Stands up to the harshest weather conditions
- Class 0 fire performance
- Immune to attack by pests and insects
- Weatherboard is ideal for use where traditional timber boards might be considered especially for facades and window and door surrounds
- BBA Certificate No. 06/4299



Standards

The technical properties of Operal sheets are in accordance with the prescriptions of BS EN 12467:2004, Category A, Class 3.

Manufacture

Operal is an autoclaved fibre cement sheet which is manufactured from a mixture of cement, organic fibres, fillers and water.

Colour and availability

In order to give the best possible service, the most popular colours and sizes are kept in stock. Please see page 8-9 for the full colour range.

Dimensions

Sheet sizes	3050 x 1220mm
	2500 x 1220mm
Nominal thickness	9mm
Nominal weight	10.8kg/m ²
Tolerance on thickness	±10%

Properties (air dry)

Density	1230kg/m ³
Bending strength:	
Longitudinal	23N/mm ²
Transverse	17N/mm ²
Modulus of elasticity	8.000N/mm ²
Hygroscopic movement	2.1mm/m
Coefficient of linear expansion	15 x 10 ⁻⁶ /m/K
Thermal conductivity	0.25W/mK
Reaction to fire:	
Building Regulations	Class 0
EN 13501-1	A2-s1-a0



Operal product data



Advantages

- Lightweight
- Easy to fix
- Class 0 fire performance
- No maintenance necessary
- BBA Certificate No. 06/4355

Applications

- Soffits and fascias
- Balcony panels
- Infill panels
- Dormer cheeks
- General cladding





↑ Cedral Weatherboard

Weatherboard is the ideal low maintenance, rot free alternative to traditional timber weatherboarding.

With the visual appeal of natural timber, simplicity of installation and resistance to rot, Weatherboard is an attractive, low maintenance alternative to PVCu.

Weatherboard can be supplied in Natural finish for site painting, or in a range of 22 factory applied solid colours and 6 woodstains.

Our bespoke colour service allows housebuilders and specifiers to maximise their aesthetic options by offering an extensive range of factory-approved paint options to meet project requirements.

With a colour range that complements Operal (pages 8-9), Cedral offers integrated solutions for external cladding design.

← Operal

This impact resistant, durable and flat cladding is ideal across a range of applications from a residential solid to a rainscreen cladding skin for a low rise commercial unit.

Operal is cost effective and easy to fix, and with the same range of colours, performance and maintenance levels as Cedral, is an ideal cladding partner.

With a colour range that complements Cedral (pages 8-9), Operal offers integrated solutions for external cladding design.

Services & support



Technical Advisory Service

Specifiers require prompt, knowledgeable and detailed responses to a vast range of enquiries.

Our Technical Advisory Service is staffed by a qualified team with specialist knowledge not only of all Marley Eternit products, but also crucially, how those systems integrate with other components and comply with Building Regulations, Health and Safety, environmental and other critical criteria.

Other services

Customer services

Marley Eternit is committed to providing outstanding customer care and is staffed by experienced personnel.

Our nationwide external sales team are not only flexible enough to visit office or site, but have a thorough understanding of all our products and the ability to impart this knowledge to you quickly and simply.

Samples and literature can be sent to you by courier, or, if you prefer a sales person to call, this can be arranged to suit your schedule.

Training centre

We have a purpose-built training centre where we are able to impart our expertise and demonstrate our ongoing commitment to training within our industry.

CPD services

Marley Eternit offer RIBA accredited CPD services which can be presented to you or your offices on request.



→ More

contact Tel 01283 722588

E-mail cladding@marleyeternit.co.uk

web marleyeternit.co.uk

www.marleyeternit.co.uk

Specifying the correct cladding system is a fundamental consideration of any building project.

To ease this process, the Marley Eternit website has been designed as a comprehensive and easy-to-use resource for the visitor. It is flexible and easily navigable ensuring simple selection of our products to satisfy project needs. Amongst many other features, it has the facility to download literature, CAD details and request samples.

Site features

- Comprehensive product data
- Product selector – a tool to help selection of the right product
- Case studies – a searchable database of completed projects
- Downloadable literature
- Request samples and printed literature
- Press releases and industry news

Reference to specific relevant areas of our website are shown throughout this book.

CAD details

Access to CAD drawings illustrating how specific cladding details can be formed.



Printed with vegetable-based inks from traceably sustainable sources,
on paper sourced from well managed forests and controlled sources.
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Customer Services

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