Cladding

Cladding & Shading Sector Product Guide

The mark of responsible forestry

Look for FSC® certified products

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2017

Low maintenance composite timber wall cladding and louvre cladding for domestic properties, commercial buildings, offices and mixed use developments.

...designed for the future

Industrial Rail Marine Decking **Cladding**

dura™ composites

About us

Dura Composites Ltd. is a leading global supplier of high performance composite flooring, cladding and structures which are ideal for the landscaping, architectural, industrial, marine and rail sectors as a long lasting and cost-effective replacement for wood, steel and concrete.

Dura Cladding in Type 150 Flush in Barn Black

Our UK Headquarters is dedicated to innovation and ensures that Dura Composites is always at the forefront of composite material technology.

Our growing team have extensive knowledge and practical experience of composite timber, fibreglass reinforced plastic and other related emerging materials.

The range of products on offer is vast, from composite decking, pergolas and cladding through to floor walkway grating, service risers and trench covers.

All products are designed to offer a low life cycle cost thanks to their low maintenance requirements and long life expectancy.

Dura Composites' products are also available through a well-established global distribution network in the Middle East, Africa and Europe.

Your local distributor can be found on the reverse of this guide.

For more information visit **www.duracomposites.com**

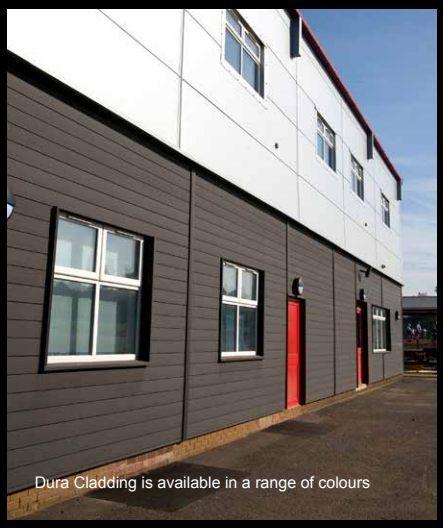
Dura Composites Head Office

BIM Objects Available

Our Dura Composites BIM Objects are available FREE now and allow specifiers to easily incorporate Dura Cladding into an overall design. For more info visit: www.duracomposites.com/about-dura/building-information-modelling/

What are composites?

Composite materials are products made from two or more constituent materials with significantly different physical or chemical properties, that when combined, produce a material with different characteristics to those of the individual components.



Dura Cladding is available in a range of colours

Dura Cladding provides an attractive and long lasting finish

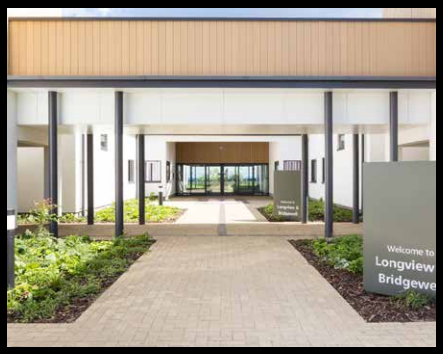
10 Year Warranty For Peace Of Mind

Easy To Install

Colour Stable

Eco-Friendly. Made From Recycled Materials

No Need To Paint Or Treat. Ever



Type 150 Flush in Cedar installed vertically

What are the benefits?

1. Strong and durable, composite timber looks and feels just like natural wood
2. The manufacturing process used to produce composite timber means you can create a wide range of attractive colours that can easily rival traditional wood
3. The colours are both vibrant and long-lasting and NEVER need painting or treating unlike traditional timber
4. The product still looks new after years of use and remains cost-effective over its expected lifecycle

This Product Guide is designed to be read in conjunction with the Installation and Technical manual which is available online at: www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Exterior Wall Cladding

Dura Cladding

Dura Cladding is made using a highly developed extrusion process and has a unique timber and plastic composition. Recycled high density polyethylene polymers, recycled ground hardwoods and specifically engineered additives are harnessed together with high performance coupling agents to provide beautiful low maintenance 87% recycled and FSC® Certified wall cladding. Dura Cladding provides the client with a traditional wood cladding appearance coupled with a 25 year design life and a fraction of the maintenance costs of natural wood.

Applications

- Offices & Factories
- Private / Public Buildings
- Screening
- Architectural Fascias
- Commercial Premises
- Warehouses
- Display Areas
- Outbuildings & Workshops

Features

- High Strength To Weight Ratio
- Permanent Colour
- Rot, Splinter, Warp Resistant
- Easy Installation
- Weather Resistant
- Fire Resistant
- Simple Cutting And Site Install
- UV Colour Stable
- FSC® Certified
- No Knots

Benefits

- Easy Handling
- Colour Stable
- No Painting And Staining
- No Specialist Skills Required
- 10 Year Warranty
- Only Requires Standard Tools
- Looks Good Through Lifespan
- Eco-Friendly
- Few Wasted Planks

Dimensions

Cladding Profile	Plank Thickness	Plank Length	Plank Face Width	Maximum Fixing Span	Weight l/m
Type 150 Flush	21mm	3600mm	150mm	600mm	2.04kg
Type 150 Weatherboard	21mm	3600mm	150mm	600mm	2.34kg
Type 200 Flush	21mm	3600mm	200mm	600mm	3.14kg
Type 250 Flush	21mm	3600mm	250mm	600mm	3.75kg
Starter Trim	21mm	3600mm	60mm	600mm	1.21kg
Finishing Trim	38mm	3600mm	154mm	600mm	2.7kg
External/Internal/Expansion Trim	38mm	3600mm	139mm	600mm	4.11kg
Trim Insert	14mm	3600mm	28mm	600mm	0.24kg
Fascia Trim	9mm	3660mm	230mm	-	2.88kg
Fascia Trim	10mm	3660mm	140mm	-	1.94kg

Material Specifications

Characteristics	Unit	Test Reference
Tensile Strength	15mpa	BS 6399
Impact Strength	8kj	ASTM D1037 - 93
Flexural Strength	3.15gpa	ASTM D1037 - 93
Flexural Strength ****	3.13gpa	ASTM D1037 - 93
UV Aging Test	Pass	ISO 4892 - 2
Density	1.4g/cm3	Ceram, Stoke on Trent
24 Hour Water Absorption	1.07%	ASTM D684
Fire/Flammability Resistance of Composition	Euro Class Dfl-S1	BS EN 13501-1
Expansion Rate	3.882 E-US(K-I)	Ceram, Stoke on Trent
Weatherability	No Damage at 100 cycles	MOAT 22
Thermal Conductivity	0.154 W/m.K.	Indicative result
Maximum Thermal Expansion Rate*	0.038mm/min/°change	ESG Report M5703R1 Rev1
Maximum Thermal Contraction Rate**	0.036mm/min/°change	ESG Report M5703R1 Rev1
Frost Resistance	No Damage	DD CEN/TS 772-22 :2006
Structural Wind Load-Negative	<654.86kg***	ESG Report M5703R1 Rev1
Structural Wind Load-Positive	<2308.6kg	ESG Report M5703R1 Rev1
Sustainability	FSC® Certification	FSC® Certification
Recycled content	Minimum 83% recycled	Ceram, Carbon footprint report

*From 60 to 80°C **From 70 to 30°C ***Dura Cladding exceeded the test rig capacity ****After UV aging (1000 hours & rain)

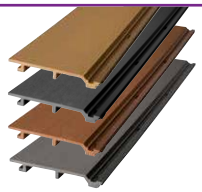
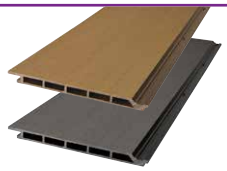
Please note that colours shown in this brochure are representative only. The Dura Composites manufacturing process results in a high level of colour consistency although some variation in colour may be apparent across planks from different production batches.

Whilst Dura Cladding is colour stable, there will likely be some initial colour lightening as the product weathers, which typically occurs in the first 3 months, dependant on level of UV exposure and then stabilises. For more information or for product samples please contact your local Dura Cladding distributor.

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Product Range Selector

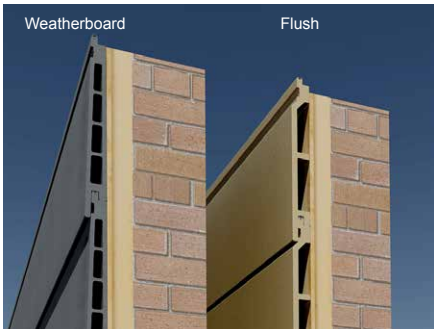
Dura Cladding is available in both flush and weatherboard styles and in 3 widths from 150mm to 250mm 'face' coverage. The availability of wider planks provides a striking finish and also benefits from reduced installation times, making them ideal for use on larger buildings. There are several attractive colours to choose from, as shown in the table below.

Flush Range			Weatherboard Range
Type 150	**Type 200**	**Type 250**	**Type 150**
			
Plank Strength **MEDIUM**	**Plank Strength** **MEDIUM**	**Plank Strength** **MEDIUM**	**Plank Strength** **MEDIUM**
Install Speed **MEDIUM**	**Install Speed** **FAST**	**Install Speed** **VERY FAST**	**Install Speed** **MEDIUM**
Recycled Content Up to 87%	**Recycled Content** 87%	**Recycled Content** 85%	**Recycled Content** 87%
Typical Applications Domestic Property Residential Projects	**Typical Applications** Residential Projects Commercial Projects Factories Offices	**Typical Applications** Residential Projects Commercial Projects Factories Offices	**Typical Applications** Barns Factories Workshops Warehouses
Colours Teak Charcoal Cedar Grey	**Colours** Teak	**Colours** Cedar Grey	**Colours** Barn Black

The difference between Flush and Weatherboard

Weatherboard or Featheredge cladding is an ideal solution for those who prefer a traditional appearance and is typically used on barns, outbuildings, lodges and sheds. Available in Barn Black colour in boards of 150mm, the cladding is designed to be laid horizontally with an overlap and has an attractive rustic look.

In the Flush range, Dura Cladding comes in a range of other attractive colours and sizes ranging from 150mm to 250mm. Dura Composites Flush Cladding has modular fixings that enable the cladding to be flush to the wall.



www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Type 150 Flush

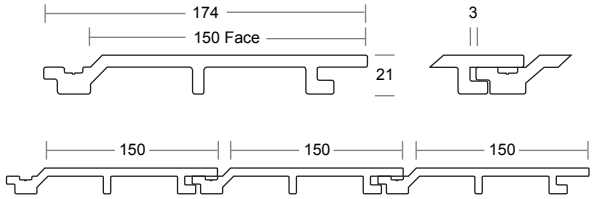
Dura Cladding Type 150 Flush provides an attractive hardwearing, protective layer against the elements and is an excellent insulator.

Type 150 is available in Cedar, Charcoal, Teak and Grey to suit any application.

Type 150 in Cedar shown with external trim

Type 150 in Charcoal

Dimensions



All measurements are in millimetres

Type 150 in Cedar used on offices in Newport

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

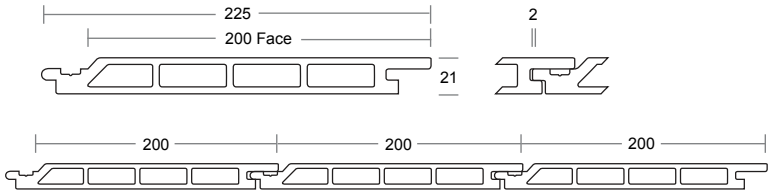
Type 200 Flush

Dura Cladding Type 200 Flush is available in Teak and looks and feels just like natural wood. Dura Composites unique Composite Timber formula produces a longer lasting cladding that is environmentally friendly, easy to install and requires minimal maintenance.

Dura Cladding can be used to clad garden rooms

Type 200 Flush in Teak

Dimensions



All measurements are in millimetres

Exterior façade using Dura Cladding Type 200 Flush in Teak

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Type 250 Flush

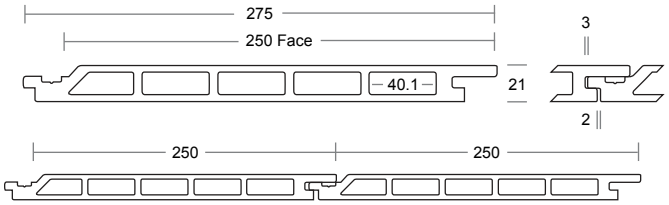
Dura Cladding Type 250 Flush is available in two attractive colours – Cedar and Grey.

All our cladding products are UV Certified to ISO 4892-2, meaning that after the initial expected weathering they will survive even the harshest of climates.

Dura Cladding Type 250 Flush in Cedar

Type 250 Flush in Cedar

Dimensions



All measurements are in millimetres

Company Head Office façade utilising vertical flush cladding in Type 250 Grey

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

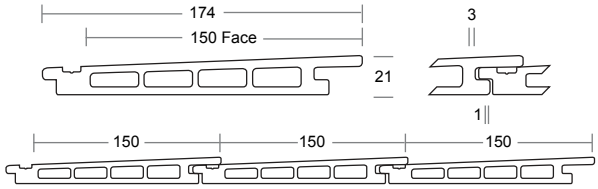
Type 150 Weatherboard

The Dura Composites Weatherboard or Featheredge cladding is ideal for those applications where a traditional appearance is preferred, such as barns, outbuildings, lodges or domestic properties.

Weatherboard cladding is designed to be laid horizontally with an overlap and has an attractive rustic look. A wide range of trims and accessories are available to complement any design.

Type 150 Weatherboard is equally attractive when used on domestic or commercial buildings

Dimensions



All measurements are in millimetres

A stylish mix of rendered and Type 150 Weatherboard cladded walls can harmonise the overall look of a property's exterior and improve warmth and energy efficiency.

The difference between Weatherboard and Flush?

Weatherboard or Featheredge cladding is designed to be laid horizontally with an overlap and has an attractive rustic look. The Flush range is available in a variety of different sizes and has modular fixings that enable the cladding to be flush to the wall.

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Accessories

A comprehensive range of trims and accessories are available to complement your Dura Cladding design. For more information about how to prepare and install Dura Cladding, please consult the free supporting Technical Manual available on our website or your Dura representative.

Internal, External, Corner and Expansion Trim

Internal, External and Expansion Trims provide a professional finish whilst allowing the composite cladding to expand and contract with the changing environment.

Starter Trim

Our trims provide the finishing touches to ensure a professional, clean look for your composite cladding.

Finishing Trim

Our range of complementary trims can be cut to size to suit window or door frames.

Internal / External Trim

Starter Trim

Finishing Trim

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Trim insert position

End caps

Fascia

Trim Insert

The trim insert allows for quick installation and covering of fixings, ensuring a neat finish to your cladding project.

End Caps and Plugs

Our end caps clip in easily to the end of cladding planks to give your cladding a clean edge.

When to use Fascias

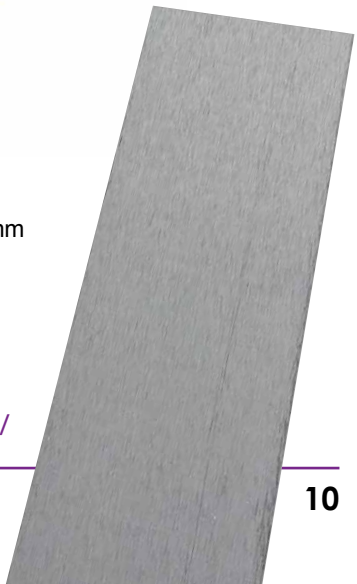
Fascias

Fascia boards can be easily incorporated into any design and allow for the creation of a maintenance free roofline. Fascia boards are reversible and feature attractive grooves on one side and is sanded smooth on the reverse.

Fascia trims are available in 2 sizes, depending on colour:

230mm x 9mm
(Cedar, Barn Black, Charcoal & Teak)

140mm x 10mm
(Grey)



Dura Composites' Cladding Trims are multi-purpose and should be cut at the relevant point using our handy reference guide.

www.duracomposites.com/cladding/composite-cladding/specs-and-information/

Our Essential Guide to Getting the Most From Your Dura Cladding

Whether you're planning a commercial, residential, new-build or refurbishment cladding project, Dura Composites has a durable, simple to install, cost-effective and environmentally friendly solution to meet your needs.

Our high-performance composite cladding delivers a host of advantages versus traditional materials and is the number one choice for architects, specifiers and homeowners looking for an attractive but futureproof solution. To ensure you get the best results, we recommend working with a professional contractor with previous cladding installation experience. Please ensure that the guidance provided below and in our supporting Technical Install Manual are strictly adhered to as improper installation (including the use of non–approved trims, fixings and accessories) will invalidate your product warranty.

To activate your product warranty after purchase, please complete the online form at **www.duracomposites.com/warranty/**

When planning your Dura Cladding, please bear in mind the key considerations opposite.

To download the Dura Composites detailed Technical Manual, please visit: www.duracomposites.com/cladding/composite-cladding/specs-and-information/

1. Safety First

Before installing any cladding product, you should review local building codes and regulations, and consult with local building officials to ensure compliance and safety. Dura Composites recommends that all cladding designs be approved by a licensed architect or engineer prior to installation. Wear protective clothing and safety equipment where necessary such as safety glasses, gloves, dust masks and long sleeves, particularly if cutting in confined spaces. Refer to the operator's manuals for safety guides for all power tools used.

2. Storage and Handling

To ensure the best performance of our products, it is vital that proper care and attention is given to storage and handling of materials. Please ensure you adhere to the following guidance:

- Store the products on a flat and level surface in their original packaging until you are ready to install them.
- If stored outdoors the products must be kept in a covered area to prevent exposure to direct sunlight and weathering.
- Take care to ensure that boards are not stacked adjacent to sources of moisture.
- Professional fork lifts should always be used while uploading and discharging pallets. Pallet stacking should not exceed 4 pallets maximum.

3. Choose the Right Product for Your Needs

Dura Cladding is ideal for both domestic and commercial new build & refurbishment projects and can be laid horizontally with either overlapping or flush faces or vertically for those projects which require a different aesthetic.
In the Flush range, Dura Cladding comes in a range of other attractive colours and sizes ranging from 150mm to 250mm.

Weatherboard or Feather-edge cladding is an alternative solution for those who prefer a traditional appearance and is typically used on barns, outbuildings, lodges and sheds. Available in Barn Black colour in boards of 150mm, the cladding is designed to be laid horizontally with an overlap and has an attractive rustic look.
Once you have decided where you want your cladding situated, measure the length and width of the total area. Cladding is installed horizontally as standard, but Dura Cladding can also be installed vertically to provide a different final look.

4. Thermal Expansion and Contraction

Extremely warm or cold outdoor temperatures play a significant role in the installation and performance of all cladding products. Following the detailed installation instructions in our supporting Technical Manual will help manage and reduce the effects of thermal expansion and contraction. Please refer to the gap guide in our Technical Manual to ensure your planks have adequate space for expansion and contraction and to preserve the service life of your cladding. Please ensure that you allow Dura Cladding to acclimatise to the exterior temperature before cutting and installing.

5. Care & Maintenance

Once you have completed the install of your Dura Cladding, we advise that the cladding is either washed down thoroughly with a yard broom or pressure washed to ensure that a good clean surface is ready for you to enjoy.

Basic Cleaning

Spray with a hose to remove surface debris. Use warm soapy water and a soft-bristled brush to clear dirt and/or debris from grooves or contours.

Pressure Washing

Pressure washers up to 1500psi may be used to maintain cleanliness of timber composites. In order to prevent any damage, always keep the pressure washer nozzle at least 15cm (6 inches) from the surface, and avoid concentrated spraying on one area for more than 3 seconds. The use of a pressure washer in this manner will not shorten the life of the material.

Getting started - Our Simple Install Guide

Preparation

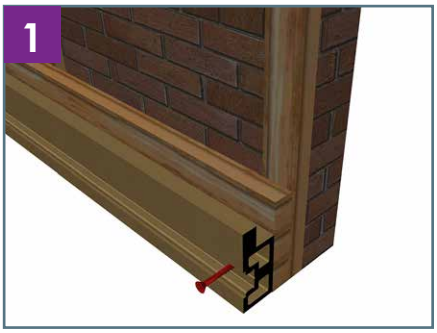
1. Decide on which direction the cladding will be installed:
It is possible to install Dura Cladding in either direction, both vertical and horizontally. Measure the length and width of the total area. As standard, any cladding should be installed horizontally. However, it is also possible to install vertically.

2. Select the area to be clad and produce a bill of quantities:
Before you finalise your order, it is best to choose exactly which parts of the building that you wish to clad with Dura Cladding, how large it will be, and which cladding planks and which trims you will require. Normally, it is best to produce a bill of quantities based on a CAD layout taking into account the actual plank lengths available. This is something that we may be able to help with subject to sufficient time and information. Most customers find that it is wise to build in a waste factor of 7-10% to account for the inevitable quantity of material that cannot be used due to cutting - this may be more or less depending on the number of cuts required to fit awkward shapes. By taking these factors into account, it is more likely that all of your planks can be delivered on a single load.

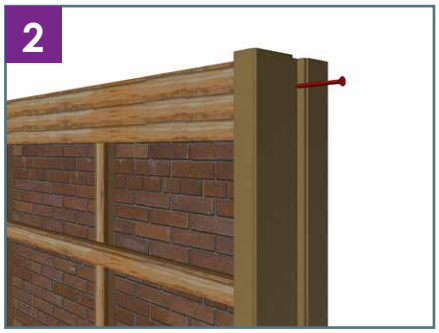
3. Preparing the battening:
Now that you know the direction of the cladding and the exact area of your cladding, next you must determine the batten layout. It is most common to use timber battens although other approved wall batten materials can be used so long as they are fixed to the building using a suitable fixing system. Each Dura Cladding plank must be supported every 600mm. Extra care is required in order to provide sufficient battening in and around obstacles such as windows, fascias, etc.

Installation

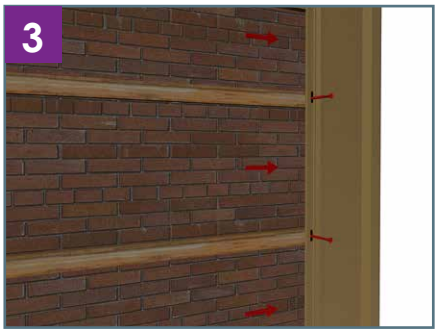
Vertical Cladding



Step 1: Place the Internal Trim (see Trim Cutting Guide) in position at the bottom batten. Screw into the middle of the trim.



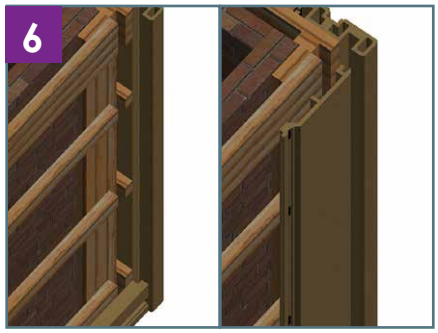
Step 2: Position External Trim so it lines up with the Starter Trim and secure to battening. Screw in centre of grooves.



Step 3: Place the first Cladding Plank at the end and secure in the middle of the elongated holes.

Step 4: Repeat process until you reach the end. Use Internal Trim at the top, position on Batten and attach with screws. Push in the Trim Inserts at the Top and Bottom Trims.

Step 5: Use External Trim, cut to size and secure with screws. If cladding carries on round corner, make sure External Trim lines up with battening. Push in Trim.

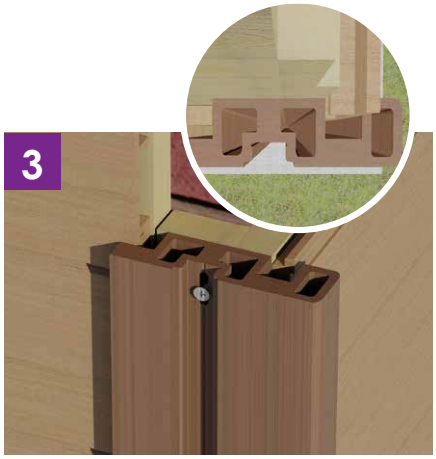


Step 6: If your cladding carries on around a corner, follow Steps 1 through 5. Make sure the External Trim is in the right position, so as to place the Cladding Plank into the right position.

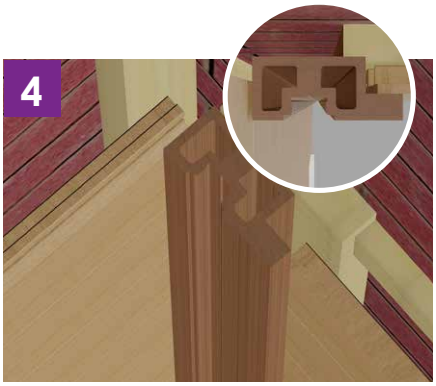
Installation
Horizontal Cladding

Step 1: Fix the Starter Trim to the batten. The screw should be positioned in the centre of the slotted hole. Do not over tighten as this will restrict expansion and contraction.

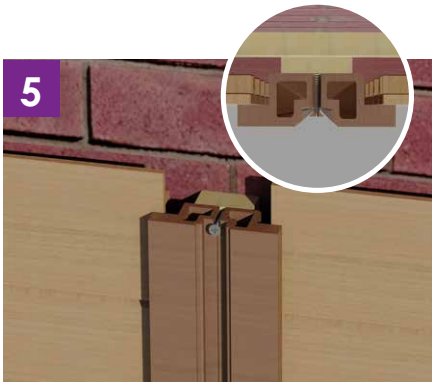
Step 2: Place the first plank in the Starter Trim ensuring the hole centres line up with the battens. Again, do not over tighten as this will restrict expansion and contraction. Repeat this process, checking the level before each plank is fixed.



Step 3: Cut the External (Corner) trim as per the cutting guide (prev page). Place trim in position and mark on the battens to show where planks finish. Position Cladding approx. half way into recess. Fix using an 8G A4 Stainless Steel Pan Head Screw, 50mm in length. Push the trim insert into place.



Step 4: Cut the Internal Trim as per the cutting guide. Position the Internal Trim and mark on battens to show where planks will finish. Position cladding approx. half way into recess. Fix using an 8G A4 Stainless Steel Pan Head Screw, 50mm in length. Push the trim insert into place.



Step 5: Cut the Expansion Trim as per the cutting guide.
Place into position.
Fix using an 8G A4 Stainless Steel Pan Head Screw, 50mm in length.

Step 6: Cut a Finishing Trim to size by marking where cuts are needed. Mitering and butt-joining is acceptable. Mark batten centres then measure the diameter of the plugs supplied to enable you to drill the exact oversized hole through the finishing face only. These can then be neatly plugged once profile is fixed into position. Drill a 6mm hole and carbon burr to elongate hole. Fix the Trim through the second skin using 8G A4 Stainless Steel Pan Head Screw, 25mm in length. Insert plug and clean with chisel and sandpaper (40 grit abrasive). Fascia trims can be cut to required size to suit windows or door frames from our standard solid fascia boards.

Step 7: Optional Soffit Detail: In instances where a soffit return is required, our unique starter trim can also be used as a soffit detail to create a neat finish. As each project circumstance will be different, please ensure that you contact us to check suitability prior to installation.

Step 8: It is unlikely that cladding installed horizontally on the wall will terminate on a full width plank. If this is the case it maybe necessary to cut the last plank down in width. There are a range of options available, subject to individual site conditions. Please consult our detailed Technical Manual for more details on possible scenarios for finishing the last plank.

Solar Shading Cladding

Dura Louvre

Dura Louvre provides an aesthetic design solution to protecting a building against extreme solar influence, or to covering unsightly areas whilst still maintaining desirable daylight.

Made of composite timber, Dura Louvre can help reduce the thermal heat in south-facing buildings as well as reducing energy costs by minimising air conditioning requirements. It can also be used effectively to screen pipework, utilities and other areas from view.

Dura Louvre solar shading cladding can be integrated into new builds or added to existing properties and will transform the exterior of any building.

Applications

- Solar Shading for Offices & Commercial Buildings
- Screening of Unsightly Areas
- Protective Wall Covering
- Ventilation
- New Finish for Existing Buildings

Features

- UV Colour Stable
- Rot, Splinter, Warp Resistant
- Easy Installation
- Weather Resistant
- Fire Resistant
- FSC® Certified

Benefits

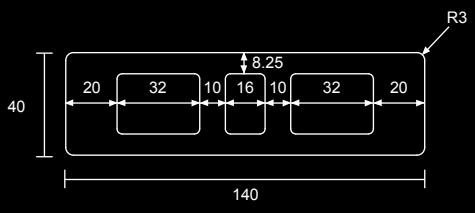
- Easy Handling
- No Painting And Staining
- No Specialist Skills Required
- 10 Year Warranty
- Looks Good Through Lifespan
- Eco-Friendly

Specifications

Cladding Profile	Plank Thickness	Plank Length	Actual Plank Width	Fixing Span	Weight l/m
Type 140/40 Louvre (Vertical)	40mm	3600mm	140mm	Min 1.0m / Max 1.8m	5.01kg
Type 140/40 Louvre (Horizontal)	40mm	3600mm	140mm	Min 1.0m / Max 1.5m	5.01kg

The composite timber fins can be fitted horizontally or vertically

Dimensions

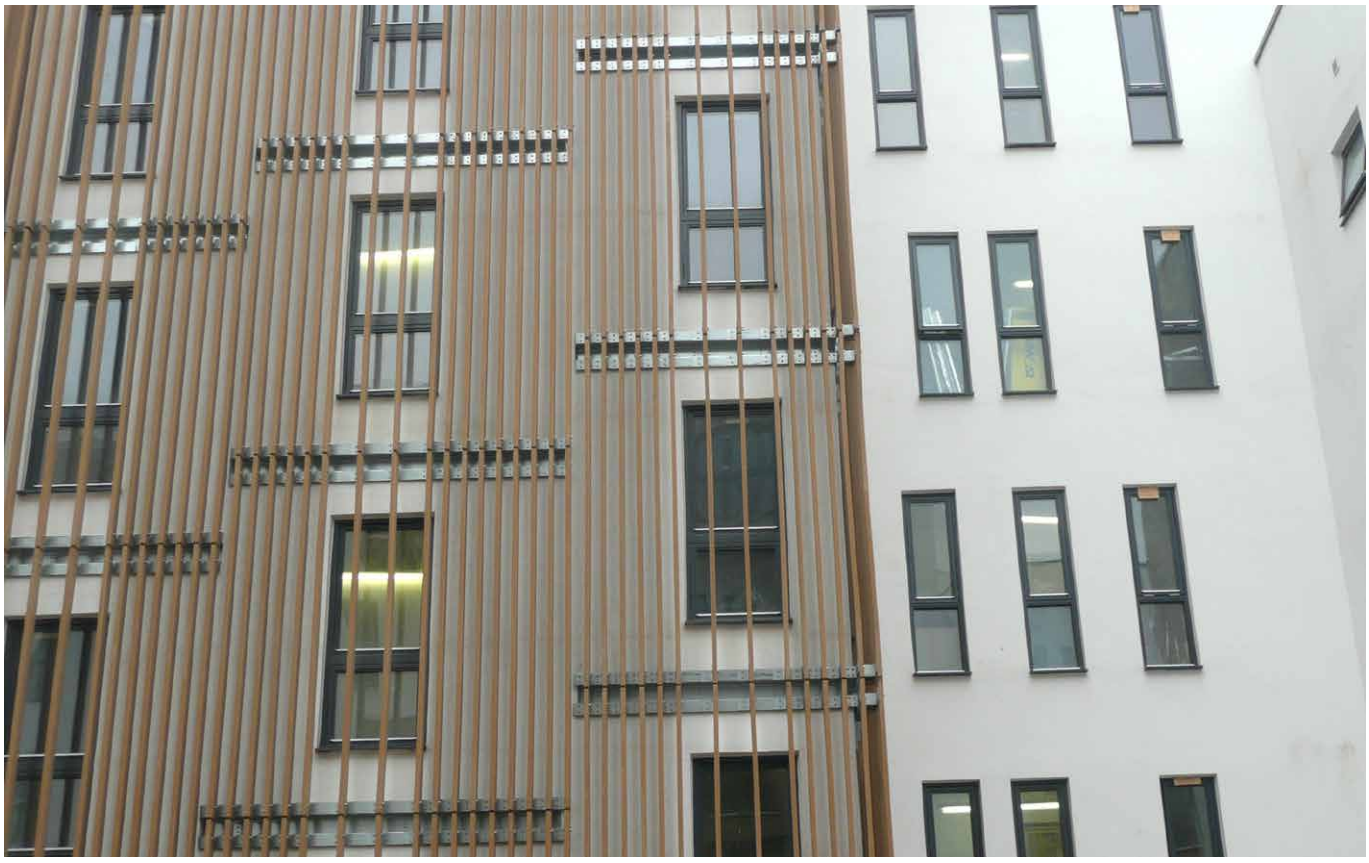


All measurements are in millimetres

Dura Louvre Cladding combines style with a range of clever benefits such as privacy, weather protection, energy efficiency and ventilation.

Dura Louvre Cladding is available in Cedar, Teak and Charcoal colours in 140/40mm profiles as standard. Other colours and profiles are available on request.

Our composite louvres provide effective solar shading and the flexibility to create unique architectural designs



Dura Louvre Cladding provides effective shade to glazed openings, preventing excessive glare and solar heat gain, but it also creates a striking architectural feature. Solar shading Dura Louvre panels can be integrated into new buildings or added to existing properties.

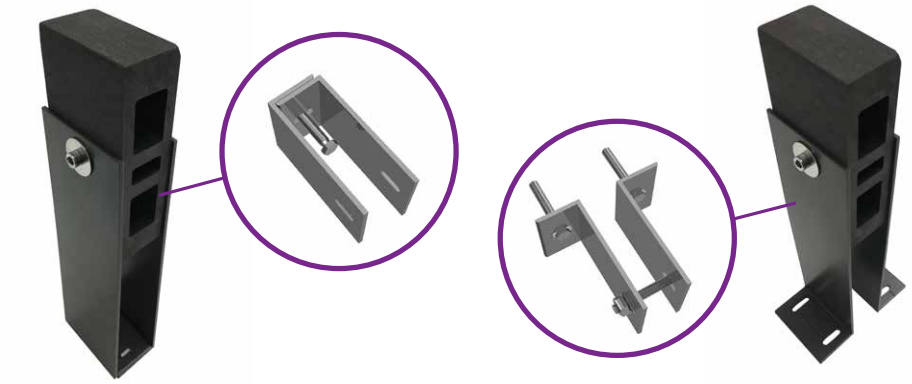
Bespoke Screening & Ventilation

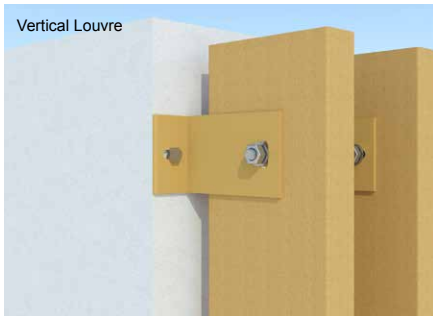
Dura Louvre cladding can be used as visual screening in locations which are sheltered from adverse weather, or where rain penetration is acceptable. Made from low maintenance composite timber it is ideally suited for covering unsightly areas whilst still maintaining desirable daylight. Dura Louvre panel systems are popular with architects and designers for the effective screening of pipework, utilities and other areas from view and can bring a natural wood look to any building façade without any of the costly ongoing maintenance of wood.

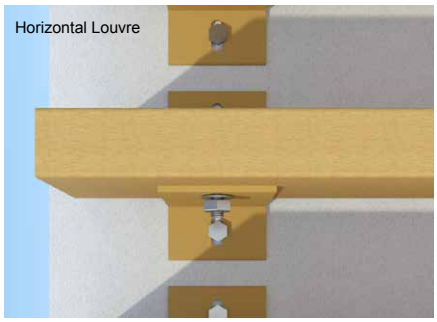
Dura Louvre can be used both to highlight a building's features and to help key areas to blend in with the overall design. If you're looking for a timber fin solution to conceal HVAC systems on the top of a building, our knowledgeable team and in-house CAD designers can help design a composite screen or façade that will stand the test of time.

Dura Louvre Bracket Options

To fix Dura Louvre, a simple bracket sleeve is used to fasten the cladding to the substructure. The brackets are fixed to the substrate at set vertical or horizontal separations, and the Dura Louvre profiles are then fixed into the brackets. Various bracket sizes are available in both Cedar and Charcoal. Available dimensions and configurations are shown below:







Dura Louvre Product Selector

Louvre Range

Type 140/40

Plank Strength

STRONG

Install Speed

MEDIUM

Recycled Content

87%

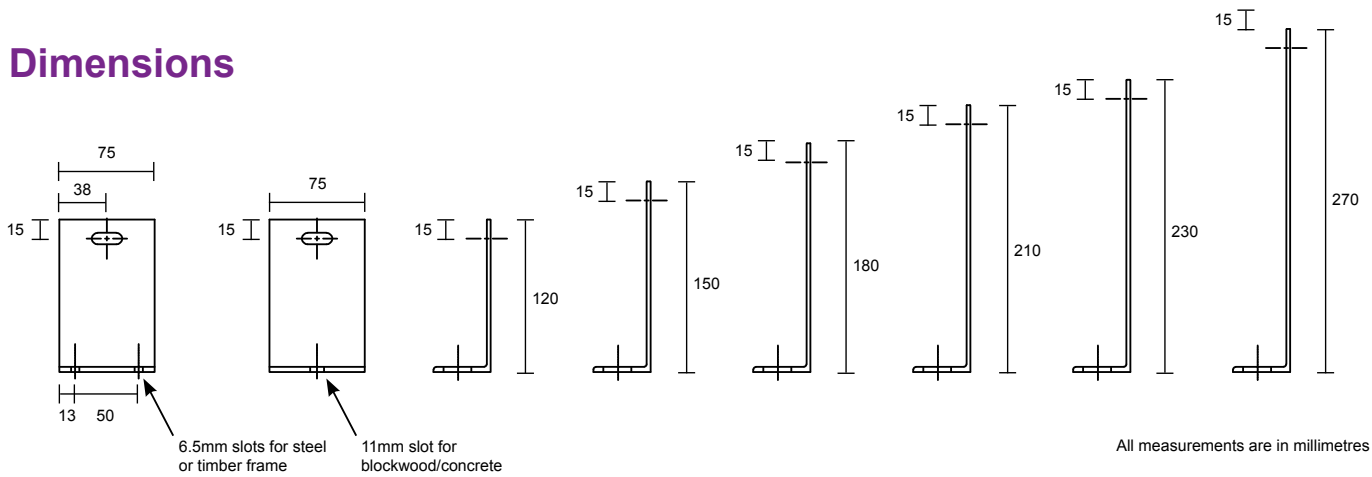
Typical Applications

Residential Projects
Commercial Projects
Solar Shading
Offices

Colours

Teak
Charcoal
Cedar

Dimensions



All measurements are in millimetres

Cladding

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