

Dura Cladding Resist

Composite Timber Wall Cladding



THE QUEEN'S AWARDS
FOR ENTERPRISE
INTERNATIONAL TRADE
2017



The mark of
responsible forestry
Look for FSC™
certified products

Dura Cladding Resist
in Pebble Grey



Dura Cladding Resist is a low maintenance composite timber exterior cladding, fire rated to Class B in accordance with European and British fire safety standards (BS EN 13501). Ideal for domestic properties and low rise buildings.

Unlocking the Power of Composites
» for Cladding & Façades

dura®
composites



About Us

Dura Composites is a leading supplier of composite products with almost 25 years' experience in delivering durable, performance-improving and cost-effective composite solutions to a wide range of industries.

We help companies of all sizes unlock the power of composites, and our client base includes businesses in the Industrial, Construction, Rail, Transport, Landscaping, Marine and Leisure sectors.

Our success is driven by our commitment to innovation and by empowering our staff to inspire, educate and problem-solve for customers.

In 2017, Dura Composites was awarded the Queen's Award for Enterprise in recognition of our achievements at the forefront of composite material technology.

Dura Composites' products are also available through a well-established global distribution network. Your local distributor can be found on our website.

For more information on Dura Composites visit
www.duracomposites.com

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Dura Composites growing team

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 enhanced characteristics to those of the individual components.

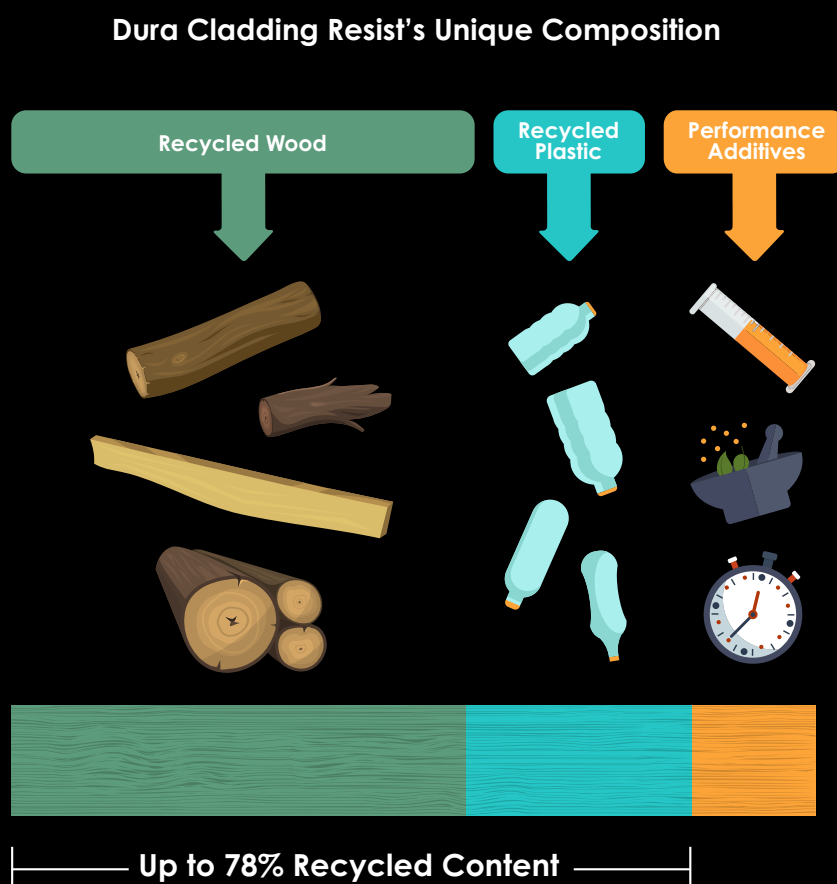
What is Composite Timber?

Composite timber, also referred to as wood-plastic composite (WPC) are composites made of wood fibre/wood flour and thermoplastic materials.

Why Choose Dura Cladding Resist?

Dura Cladding Resist is manufactured from a unique combination of recycled wood and plastic and our highly developed unique composition combines the traditional appearance of timber with the durability of an engineered composite.

Made from up to 78% recycled material, Dura Cladding Resist helps to conserve the earth's resources whilst reducing the amount of waste sent to landfill. In fact, Dura Composites was the world's first timber composite supplier to become FSC™ certified, further positioning us as a global pioneer in the world of composite timber.





Composite Timber Cladding

Dura Cladding Resist

Dura Cladding Resist is made with up to 78% recycled content, is FSC™ Certified and offers a natural wood cladding appearance with a 15 year warranty but without any of the maintenance headaches associated with traditional wood.

With safety at the forefront of Dura's product innovation, Dura Cladding Resist complies with current Building Regulations* for buildings below 18 metres in height and where the boundary (protected or not) is 1m or less (subject to Approved Document B Volume 1).

With current plans under consultation to reduce the 18 metre height threshold to 11 metres, it is the responsibility of the building owner to ensure that materials used for rainscreen cladding comply with the latest regulations**.

Dura Cladding Resist achieves a fire rating specification of B-s2,d0 – in recognition of its low smoke volume and the absence of droplet production in the event of a fire.

*Ministry of Housing, Communities and Local Government. Building (Amendment) Regulations' 2018 SI 2018/1230, December 2018. Amendments to the Approved Document B: Fire Safety

**Information correct at time of publication. Source: Ministry of Housing, Communities and Local Government. www.gov.uk/government/news/new-measures-to-improve-building-safetystandards



Applications

- New Build Homes
- Self-Build Properties
- Residential Renovations
- Extensions & Conversions
- Commercial Properties
- Offices & Factories
- Garages & Outbuildings
- Garden Rooms
- Workshops

Features

- High Strength To Weight Ratio
- Permanent Colour
- Rot, Splinter, Warp Resistant
- Easy Installation
- Weather Resistant
- Fire Resistant
- Simple Cutting And Site Install
- Recycled Content
- No Knots

Benefits

- • Easy To Handle
- • UV Colour Stable
- • Looks Good Throughout Lifespan
- • No Special Skills Required
- • No Painting Or Staining Required
- • 15 Year Warranty
- • Only Requires Standard Tools
- • Eco-Friendly
- • Minimal Waste



Outstanding Fire Performance

Dura Cladding Resist:

Our rigorous fire testing has been conducted in accordance with the correct BS EN 13501 test and installation method on the correct plane for maximum peace of mind, rather than being mounted on a calcium silicate backing board purely for the purpose of passing the fire test.

British Standards and European codes use different grading systems to class fire performance of materials, resulting in confusion for the industry. **Dura Cladding Resist** is designed to cut through the noise. Some competitors may reach Class B when tested specifically with certain fire rated barriers but fail when following their own install guide (due to lack of airflow).

Our test was conducted with a void to replicate a genuine site install, rather than being fixed to a fire rated barrier.

Dura Cladding Resist features a co-extruded 360° outer armour which protects the core of the plank, increasing its defensive properties against fire.

Customers can have confidence that **Dura Cladding Resist** has been certified and tested by a UKAS accredited body, satisfying current fire legislation; with testing carried out in an environment to closely resemble that of an actual installation for the avoidance of doubt.

Understanding European classification (BS EN 13501):

The standard includes seven classification levels, from A1 to F, with A1 representing the highest level of performance and F representing the lowest level. Dura Cladding Resist achieves Class B.

Dura Cladding Resist

B-s2, d0

The 'd' part relates to 'flaming droplets and particles' during the first 10 minutes of exposure. The index determines the level of risk from burning droplets and consequently potential fire spread.
d0 = none
d1 = some
d2 = quite a lot

The 's' part relates to total smoke propagation, during the first ten minutes of exposure. These determine a 'smoke' index which affects visibility in case of a fire. The lower the number the less smoke propagation.



Guidance On Understanding Latest UK Government Regulations

When considering the suitability of the cladding materials for your project it is critical to first understand the latest regulatory guidance issued by the local government.

In the UK all buildings have a minimum fire rating specification based on the height of the building, which is required by law. This applies to both protected areas such as stairwells or other refuge points, and unprotected areas such as property boundaries or the boundaries with adjacent buildings.

The European standard to which external cladding materials must comply is known as BS EN 13501-1:2018 and is the latest iteration of fire standards and improves on previous tests such as BS476 which were limited in both scope and classification. Although the Ministry of Housing, Communities and Local Government banned the use of combustible materials for buildings of more than 18 metres in height in December 2018, they now plan to go significantly further, by lowering the 18 metre height threshold to at most 11 metres.

Dura Cladding Resist has successfully achieved the superior classification of **B-s2,d0** – in recognition of its lower smoke volume and the absence of droplet production in the event of a fire. These attributes, combined with its limited contribution

to flame spread mean that should the building be under attack from fire, firefighters' visibility would be less impeded, leaving them able to expediently deal with extinguishing the fire. In addition, the unique composition of Dura Cladding Resist also prevents spontaneous re-ignition when the source of the flame is removed – further enhancing its safety properties.

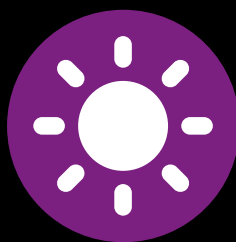
For more information or for Technical Advice, please contact us on **+44 1255 423601**.

Please note that it is the responsibility of the client and contractor to ensure that your planned design is fully compliant with Building Regulations. For further guidance on fire safety, please refer to the latest government documentation which can be found: www.gov.uk/government/publications/fire-safety-approveddocument-b

*Information correct at time of publication.
Source: Ministry of Housing, Communities and Local Government.
www.gov.uk/government/news/new-measures-to-improve-building-safety-standards

For building applications which permit a Class B fire rating.

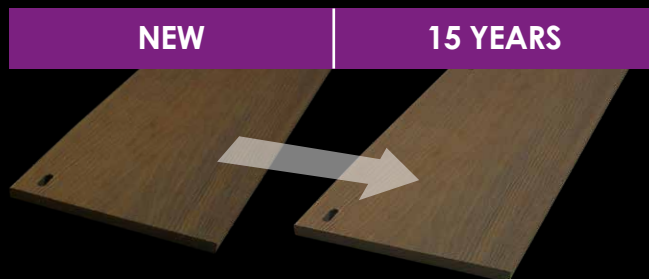




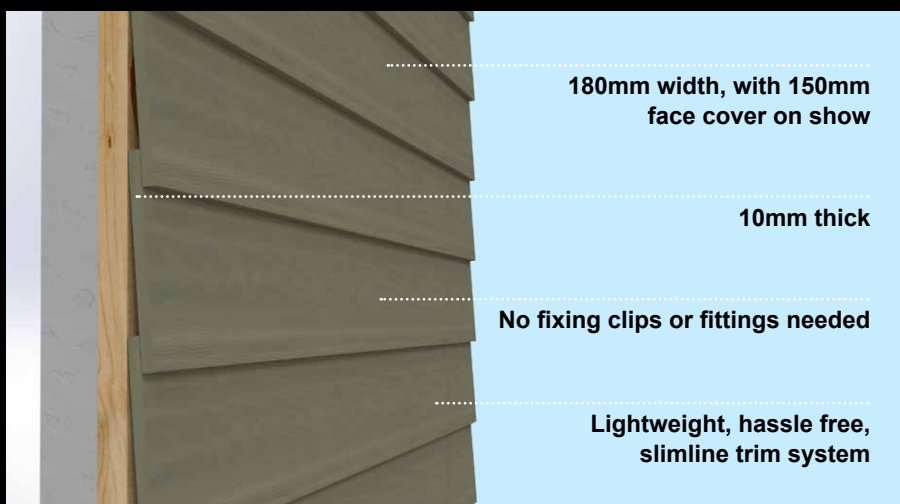
Superior UV Fade Resistance

Dura Cladding Resist is produced via a co-extrusion process where a 360° outer armour is used to protect the core of the cladding plank for its entire life. This unique outer armour protects against fade so your cladding will always look like it did when it was brand new.

Available in 6 attractive colours, all of which feature a stunning deeply embossed woodgrain on one side and a light groove on the reverse for maximum versatility and taste preference.



Attractive Weatherboard Styling



The 3660mm length cladding planks have a 180mm profile with a 150mm face and are designed to be installed in a "Weatherboard" style which overlaps at the horizontal joints to encourage water run-off for contemporary styling.

Dura Cladding Resist offers an environmentally friendly and easy to work with alternative to the health and installation issues often associated with fibre cement cladding products.



Environmentally Friendly

Awareness of the global plastic waste crisis is at an all-time high, but Dura Cladding Resist is a smart environmental choice.



Today's consumer demands sustainable products and embraces sensible consumption habits.

Not only does **Dura Cladding Resist's FSC™** chain of custody certification mean that any wood content in our products comes from well-managed forests, but up to **78% of the materials used are recycled** hardwood and plastic too.

This means that by choosing us, customers are helping to conserve the earth's resources, whilst also **diverting plastic waste from being sent to landfill** – stopping it from ending up in our oceans.

What's more, our customers can return the product for recycling and re-use in future products.



The mark of
responsible forestry
Look for FSC™
certified products

FSC™ certified
products available as
standard in the UK.
For International
enquiries contact your
Dura representative.

**Up to
78%
OF MATERIALS
ARE RECYCLED**

Dura Cladding Resist Range

Dura Cladding Resist comes in 6 different colours and can be complimented by Dura Deck, as shown below.

Now includes
**NEW
SLIMLINE**
aluminium
trims

FSC™ certified
products available
as standard in the UK.
For International
enquiries contact your
Dura representative.

Key Benefits



B - s2, d0



Resists
Fade



Resists
Stains



Resists
Expansion



Easy to
Install



Environmentally
Friendly



Low
Maintenance



Attractive
Appearance



Reversible
Planks



15 Year
Warranty



Larch

Red Cedar

Pebble Grey

IPE

Weathered
Cedar

Mahogany



Larch Close up



Fine Grain
Reversible Side

REVERSIBLE
PLANKS



Outer
Armour

360°
ARMOUR

Dura Cladding Resist Specifications

Dimensions

Cladding Profile	Plank Thickness	Plank Length	Plank Face Width	Maximum Fixing Span	Weight l/m
Dura Cladding Resist Plank	10mm	3660mm	180mm	400mm	2.28kg
Starter Trim	60mm	3660mm	21mm	400mm	0.22kg
Reveal Trim	31mm	3660mm	31mm	400mm	0.46kg
Internal Corner Trim	60mm	3660mm	25mm	400mm	0.33kg
External Corner Trim	31mm	3660mm	31mm	400mm	0.51kg
Connection Profile	10mm	3660mm	26mm	400mm	0.18kg
End Closure Profile	8mm	3660mm	15mm	400mm	0.26kg

Material Specifications

Test Item	Test Parameter	Test Data
Linear Thermal Expansion (Lengthways)	Test method: ISO 11359-2:1999 Method A Rate of temperature: 3 °C/min	29x10 ⁻⁶ K ⁻¹
Water Absorption (Expansion-thickness)	Test method: EN 317:1993	0.45%
Density	Test method: ASTM D792-13 Method B	1.29 g/cm ³
UV Light Ageing Test	Test method: ASTM G154-16 & ASTM D2244-16 UV Exposure cycle: Exposure duration: 1000h	ΔE* _{ab} = 2.60
Tensile Strength	Test method: ASTM D638-14	12.3 MPa
Flexural Strength	Test method: reference to ASTM D7032-17 Section 4.4 and ASTM D4761-13 Section 8	39.80 MPa
Low Temperature Effect (-29 ±2°C)	Test method: ASTM D7032-17 Section 4.5.1 and ASTM D4761-13 Section 8	45.10 MPa
High Temperature Effect (52 ±2°C)	Test method: ASTM D7032-17 Section 4.5.1 and ASTM D4761-13 Section 8	22.70 MPa
Moisture Effect (85%RH)	Test method: ASTM D7032-17 Section 4.5.2 and ASTM D4761-13 Section 8	39.60 MPa
Freeze-Thaw Effect	Test method: ASTM D7032-17 Section 4.7 and ASTM D4761-13 Section 8 Freeze-thaw exposure cycle : ❶ Submerge underwater for 24h→❷ -29°C, 24h→❸ 23±2°C, 24h→Step ❶-❸ as one cycle, total three cycles	Flexural Strength after freeze-thaw resistance: 32.50 MPa
Flexural Stiffness	Test method: reference to ASTM D7032-17 Section 4.4 and ASTM D4761-13 Section 8	Flexural Stiffness: 3870 MPa
Resistance to Indentation	Test method: EN 15534-1:2014 Section 7.5	Brinell Hardness: 56.17 MPa
Charpy Impact Strength	Test method: EN ISO 179-1:2010	2.6 kJ/m ²
Flammability Resistance	Test method: EN13501-1 (EN ISO 9239-1) and (EN ISO 11925-2)	B - s2, d0

While the above test data is considered to be true and correct at the date of publication, changes to the product composition after the time of publication may impact on the accuracy of the data. Please consult your Dura Composites representative for copies of the most up to date test data available. Please note that it is the responsibility of the purchaser to make their own decisions about the accuracy, recency and correctness of the information provided and the product's suitability for their specific application.

Order a sample NOW to choose your cladding colour

Please Note: All colour swatches and textures shown in this document are intended as a representation only and should not be considered as an exact colour match. We would always recommend ordering free colour samples so you can assess colour suitability before placing your order.

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 Resist is extremely colour stable, there will likely be some initial colour lightening as the product weathers, which typically occurs in the first 3 months.

The rate of weathering will vary according to the amount of UV, elevations on your building and its surroundings.

For more information visit the Troubleshooting and Frequently Asked Questions section of the Dura Cladding Resist Installation and Technical Manual.

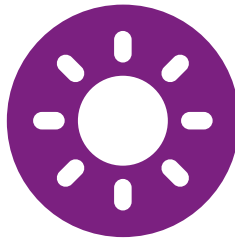
6 Reasons To Choose Dura Cladding Resist

1. Fire Performance



The UK's first co-extruded composite timber cladding with Class B fire Rating and tested in accordance with genuine install methodology, Dura Cladding Resist achieves superior fire resistance to any other co-extruded cladding on the market. Engineered to resist ignition of fire and tested to **BS EN 13501 B – s2, d0** to satisfy current UK fire legislation.

2. Fade Resistant



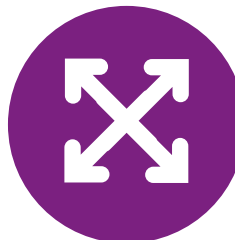
Unique outer armour protects against fade for its entire life so that your cladding always looks new. With reversible planks for maximum versatility, you can choose from either a woodgrain or grooved appearance.

3. Stain Resistant



The revolutionary outer armour protects the cladding surface from common stains, such as bird mess, providing a low maintenance and long term cladding solution.

4. Resists Expansion



Dura Cladding Resist features a rate of expansion less than half of its competitors. This means the cladding will look great in all climates.

5. Easy Installation



An easy to install fire rated composite cladding solution with simplified, low profile aluminium trims.

Features pre-drilled slotted fixing holes in the cladding planks and hassle-free fixing screws.

6. Environmentally Friendly



Dura Cladding Resist is FSC™ certified, meaning it's kinder to the environment thanks to its recycled content, long-life cycle and recyclability.



Easy Installation & Simple Trims

New Dura Cladding Resist aluminium trims help reduce waste and install time.

The Dura Cladding Resist Fire Rated composite cladding system now includes an innovative range of custom-made aluminium trims, as well as no-fuss fixing screws, for ultimate ease of installation.

The cladding planks are supplied with pre-drilled slotted fixing holes for added simplicity and accuracy. No fixing clips or fittings are needed, making installation straightforward and hassle-free. The Dura Cladding Resist range also uses self-drilling aluminium screws which have been specially selected for use with our cladding planks to streamline the cladding installation process due to their precision and ease of use **when using aluminium battening**.

The range of trims required has been simplified to reduce confusion and increase the speed of the installation. This slimline aluminium trim system creates a sleek, low profile finish complimenting the Dura Cladding Resist range.

Available in 6 coordinating colours, these trims allow for maximum versatility to suit any design. Incredibly lightweight and easy to handle makes fitting hassle-free and safe for installers. Designed to suit all install scenarios, this trim system range includes 6 different profiles eliminating the need for difficult cuts and improving efficiency.

Competitively priced, the Dura Cladding Resist system (planks and trims) are affordable without compromising on quality.

**Starter Trim only available in the colour black. Hidden on installation.*



Trims are available in the same colour to match your chosen cladding.

They are lightweight to make handling and fitting hassle-free and safe.



Timber Fixing
Screw



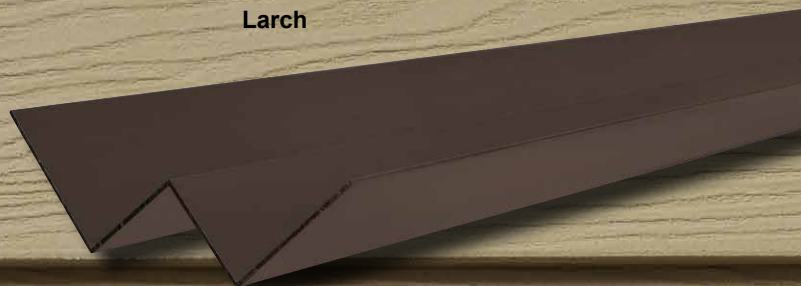
Aluminium Fixing
Screw



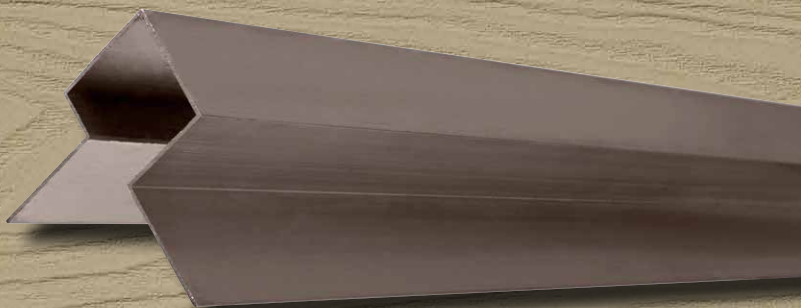
Aluminium Batten
25x48mm



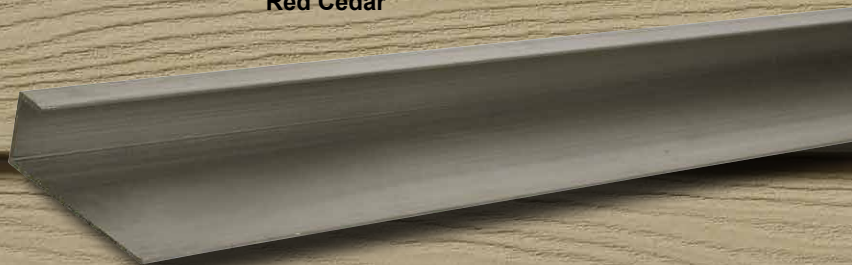
Larch



IPE



Red Cedar



Weathered Cedar



Pebble Grey



Mahogany

Installation

Dura Composites' innovative colour matched cladding trim system creates a smart, uniform finish for the exterior of your building. Our unrivalled range of aluminium trims cater to a wide range of installations in different environments. Our expert team and downloadable Installation and Technical Manual can provide further guidance on the appropriate use of the full cladding system (planks and trims).

Step 1

Position and fix vertical battens. Battens should be spaced no more than 400 mm apart.

Step 2

Perforated closures should be screwed in to place, at the top and bottom of the battens, and at each door, window sill and window head.

Step 3

Position, level and fix into place the vertical trims (such as End Closure Profile) and then horizontal trims (such as Reveal Trims); trims should be fixed using the recommended Aluminium screws.

Step 4

Position, level and fix the Starter Trim into place; using the recommended Aluminium screws.

Step 5

Measure, cut and position the Dura Cladding Resist planks. Place the first plank into the Starter Trim. Ensure that the plank is fixed to every batten it crosses and that the end of every plank coincides with a batten. Lengths of over 400 mm must be fixed to at least 3 battens.

Step 6

Overlap the next plank by 30 mm, fix into place then continue fixing the planks up the wall using the same method.

Please note: Dura Composites recommends the use of our proprietary aluminium battening and trims for maximum fire resistance. However, for illustrative purposes timber battening (fire rated) is shown in these installation images.



Starter Trim: Used to start a cladding run with a lip to cover the first batten. The Starter Trim will position the first plank at the appropriate angle for the remaining planks to be fitted, giving a uniform 'Weatherboard' finish.



External Corner Trim: A universal trim which can be used to provide protection on external corners and for stop profile applications.



End Closure Profile: To finish Dura Cladding Resist where installed in a lap configuration.





G

End Closure Profile Trim

Sloping soffit batten

Soffit Line

Create a slotted hole 5mm x 15mm placed 30mm from the lower edge of the cladding plank and 25mm from the outer edge

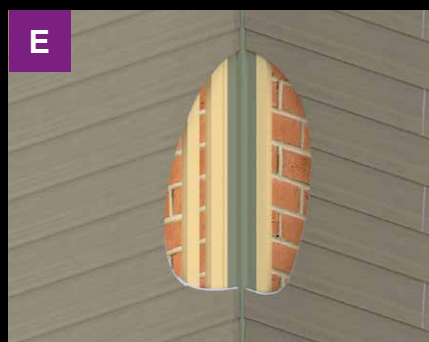
Hidden top fixing 20mm from the top of Dura resist Cladding plank (shown for clarity).

On a gable end with a triangular abutment, the Dura Cladding Resist plank needs to be fixed at the top and bottom to the batten which runs parallel to the roof slope. Failure to secure the bottom edge can result in the curling of the plank in certain conditions.



D

Connection Profile: End trim to finish Dura Cladding Resist when used as a single piece on a window reveal or soffit.



E

Internal Corner Trim: To finish the corner where Dura Cladding Resist meets an internal corner, forming a seal between the trim and the corner.



F

Reveal Trim: Used as an external corner trim on window reveals where detailing on a reveal is a single piece.

Our Essential Guide to Getting the Most From Your Dura Cladding Resist Installation

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 opposite and in our supporting Technical Install Manual is 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/ within 30 days.

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

Dura Cladding Resist
in Weathered Cedar

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 Resist is ideal for both domestic and commercial new build and refurbishment projects below 18 metres in height. *See pages 5-6

Available in 6 colours in boards of 180 mm (with a 150 mm visible face), the cladding is designed to be laid horizontally with a 30mm overlap and has a choice of 2 attractive finishes, woodgrain or a fine groove.

Once you have decided where you want your cladding situated, measure the length and width of the total area.

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 Resist, 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.

Available now from



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» for Cladding & Façades

Due to our policy of continual improvement we reserve the right to change specifications at all times without prior notice.

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March 2020

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composites

