international timber

DESIGNED FOR LIFE

SUSTAINABLE CLADDING SOLUTIONS

Grangemouth (Scotland) Sales Centre

Main Contact Number
0844 728 0320
Main Fax Number
01324 665464

Earls Rd,
Grangemouth,
Stirlingshire
FK3 8UU

Trafford Park (Northern) Sales Centre

Main Contact Number
0844 728 0340
Main Fax Number
0161 848 2901

Trafford Wharf Road,
Manchester
M17 1DJ

Parkend (South West & Wales) Sales Centre

Main Contact Number
0844 728 0360
Main Fax Number
01594 566001

Hughes Terrace, Folly Road,
Parkend, Gloucestershire,
GL15 4JF

Purfleet (London & South East) Sales Centre

Main Contact Number
0844 728 0390
Main Fax Number
01708 683334

London Rd,
Purfleet
RM19 1RE

CONTENTS

INTERNATIONAL TIMBER – OUR STORY

Balancing growing environmental consciousness with increasing demand for timber products demands a real commitment to minimising impact on the natural world.

International Timber is the UK's leading importer and distributor of sustainable timber and panel products. We are the timber specialists, providing responsibly sourced products and services for construction and joinery projects in every corner of the economy.

Wood is both a versatile and a renewable raw material, and 'building green' using wood helps to keep carbon out of the atmosphere, mitigating climate change. In line with this, sustainability and responsible sourcing are the foundation stones upon which our business is built; all our softwoods and hardwoods are chain of custody certified and legally verified where applicable.

We operate from four sites in the UK, offering a fast and responsive service. All our sites are ISO9001, ISO14001, ISO45001, FSC® certified and PEFC® certified.

international timber

OUR SERVICES

Sourcing

We source the best and most sustainable timber products from across the globe, always obtaining clear evidence of good forest management at source. We work closely with suppliers to match our customers' challenging requirements, always adhering to Chain of Custody regulations.

Our carefully selected raw materials arrive in the UK by chartered vessels from worldwide sources.

Hand Selected Products

On arrival, containers are opened and products checked by our specialists, followed by breakbulk processes and exhaustive quality assessment. The wood is then moved for storage in appropriate environments at International Timber facilities around the UK.

Products are hand selected to match individual customer requirements. Where added value services are required, wood is picked and checked then passed to our state of the art milling facilities.

Cutting and Sawing

Our investment in cross cutting and rip saws across our manufacturing sites ensures our customers benefit from fast response delivery times.

Design

Our market leading software solutions translate sketches and images to 3D solutions.

In-House Tool Room

Our skilled specialists turn these CAD designs into reality.

Moulding

We utilise some of the world's most advanced equipment to manufacture finished components for our customers.

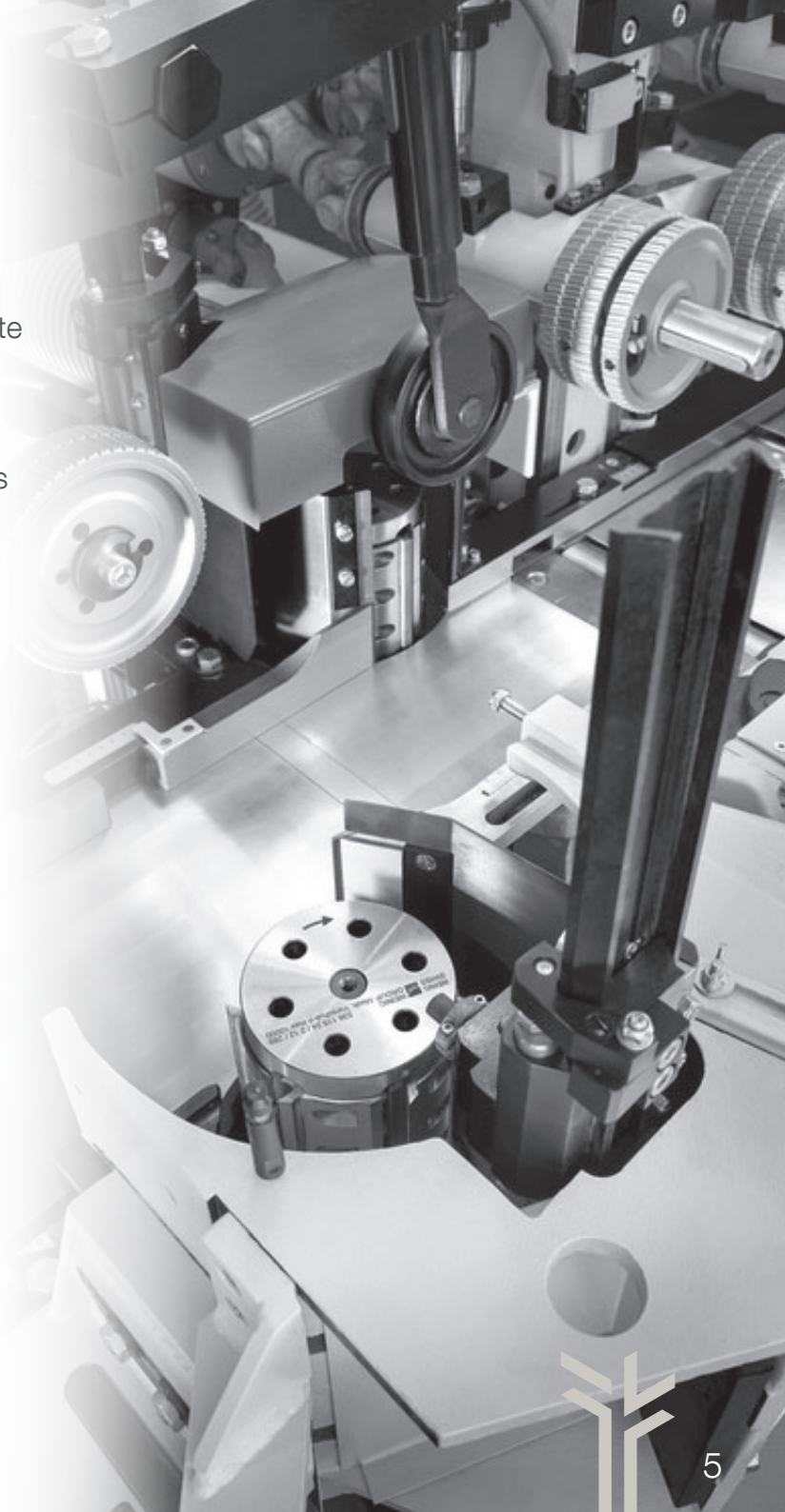
The Finishing Touch

From lacquering and fire retardant treatments through to coatings and specialist requirements, we produce the required end results.

Direct To Our Customers

Our distribution network covers all areas of the UK, from Inverness to Penzance, the Channel Islands, Northern Ireland and all points in between. We operate a dedicated fleet with vehicles to match delivery requirements, with next day options and comprehensive offload facilities.

We demand the highest quality standards at all stages of manufacture and delivery.



OUR COMMITMENT TO SUSTAINABILITY

At International Timber, we are aware that illegal timber poses a very real threat to our industry.

We work very closely with our supply chain to ensure that products produced and supplied to the Group not only meet legislative requirements but also take into account important factors including the sustainability of raw materials, lowering the embodied carbon of the products and ensuring that social conditions for workers meet internationally recognised standards.

We consider the implications of all our actions in the quest for economic, environmental and social sustainability, working in partnership with our suppliers and leading our industry to showcase a sustainable approach in everything we do.

In comparison with other construction materials, the manufacture of wood products consumes little energy. At International Timber, we are committed to maintaining these environmental advantages into the future, ensuring that every one of our products is sourced from well managed, credibly certified forests and other controlled sources to eliminate the potential damages posed by deforestation.

Look for our FSC® - certified products

TAKING OUR ENVIRONMENTAL RESPONSIBILITIES TO HEART

Wood offers us a better way to build. As they grow, trees store carbon dioxide. Even after harvesting, wood products continue to store most of this carbon. Of all the main building materials, timber is the most environmentally friendly and can dramatically reduce the carbon footprint of built structures.

Our wood products are helping to reduce energy consumption right across the life cycle when compared with other structural building products that utilise large amounts of fossil fuels in production.

Timber is non-toxic. It's safe to handle, and does not break down into environmentally damaging materials. It's completely biodegradable at the end of its useful lifespan, when it can be recycled or even used as a biofuel.

At International Timber, we're committed to investing in new opportunities to develop this versatile and renewable raw material to meet the changing needs of industry.

We play a responsible role in the global timber industry, working to meet growing demand for quality timber products whilst minimising potential adverse impacts on the environment.

WHAT IS CLADDING?

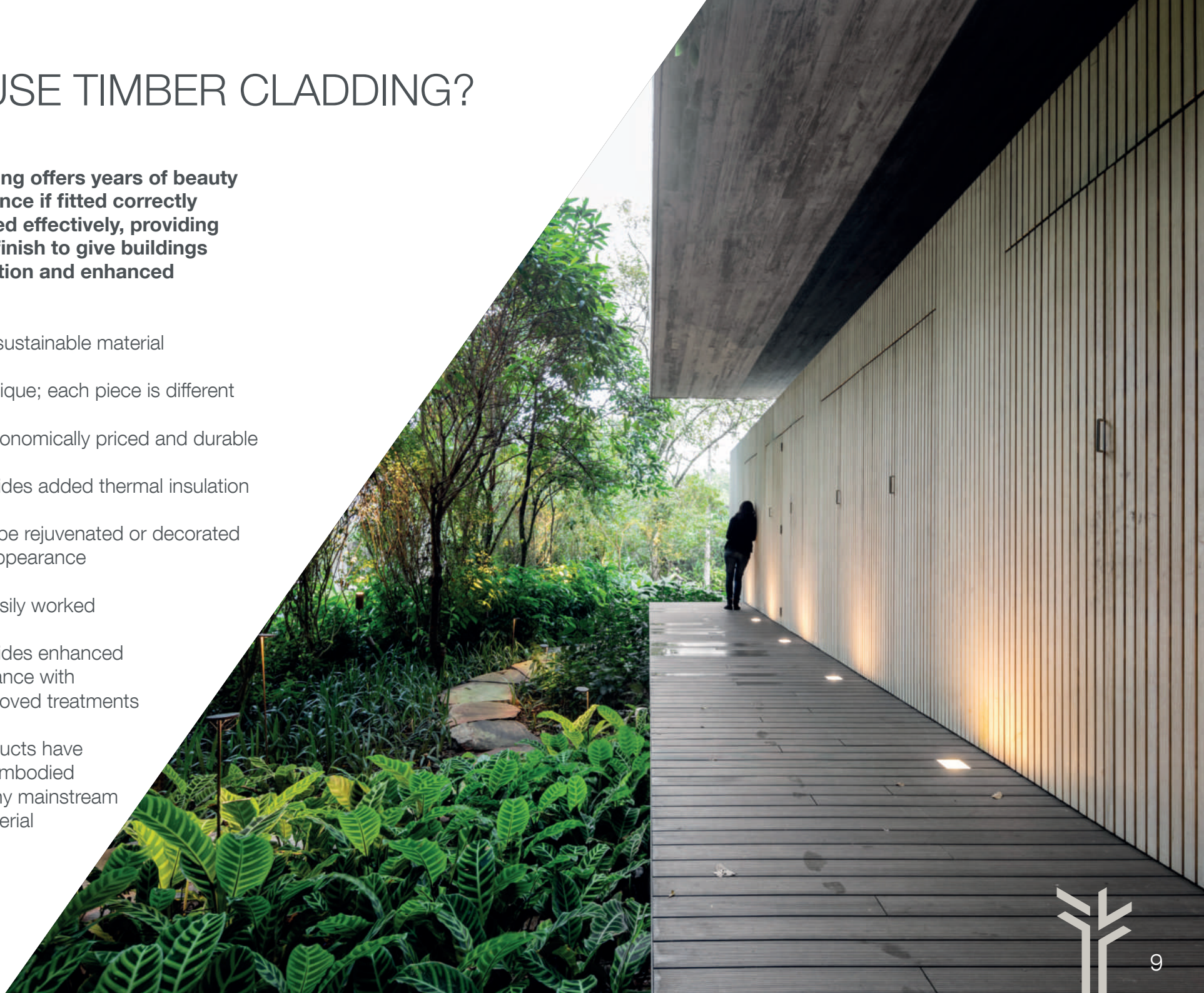
Cladding is the application of one material over another to provide a covering skin or layer. Cladding can be made of a wide range of materials including wood, metal, brick, vinyl, and composite materials.

In construction, timber cladding is used to provide a degree of thermal insulation and weather resistance, and to improve the aesthetic of the building. Cladding provides effective protection against moisture and air penetration from the elements.

WHY USE TIMBER CLADDING?

Timber cladding offers years of beauty and performance if fitted correctly and maintained effectively, providing a decorative finish to give buildings added protection and enhanced aesthetics.

- Timber is a sustainable material
- Timber is unique; each piece is different
- Timber is economically priced and durable
- Timber provides added thermal insulation
- Timber can be rejuvenated or decorated to alter its appearance
- Timber is easily worked
- Timber provides enhanced fire performance with factory-approved treatments
- Timber products have the lowest embodied carbon of any mainstream building material



USING CLADDING FOR PERFORMANCE AND EFFECT

Wood: the ultimate biophilic design option

Increasingly, architects and specifiers are incorporating biophilic design to connect building interiors and occupants more closely to nature. Using natural products as an integral part of interior design is recognised to create a healthier and more productive built environment for the people using the space.

There are proven commercial and wellbeing advantages. A study carried out in 2018 called ‘Workplaces: Wellness + Wood = Productivity’ demonstrated that people working in an environment with ample timber surfaces reported benefits such as improved mood, concentration, clarity, confidence and optimism. This study also showed a positive connection between the presence of wood in the workplace and employee absenteeism.

A study entitled ‘School Without Stress’ compared four classrooms, two of which were clad in timber, and examined the physiological differences between the pupils working in each environment. Those studying in the timber classroom exhibited a reduced and healthier heart rate, with improved levels of concentration and fewer mistakes.

Acoustic benefits

Wood panels can absorb airborne and impact sound and reduce reverberation and sound penetration. In addition, interior wood cladding adds elegance and warmth, with a wide choice of colours and finishes.

BRINGING YOUR IDEAS TO LIFE
PROJECT VISUALISATION

Our new updated visualiser allows users to select a building image most similar to their own project. They can then choose all the external finishes before finally selecting one of our cladding options – really bringing each and every project to life.

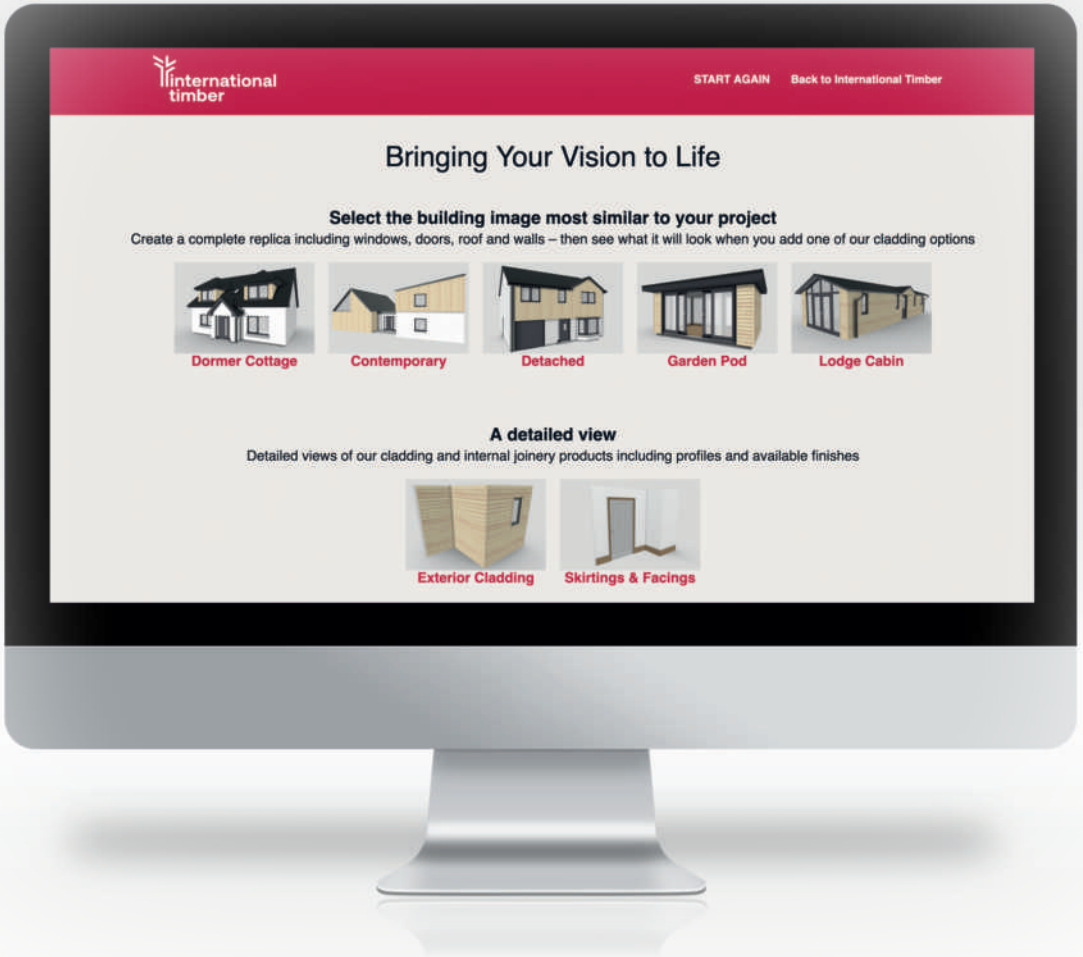
Our Cladding Visualiser is easy to use and accessible on any device. It enables users to style an effective 3D model, selecting from our horizontal and vertical cladding profiles or skirtings and architraves and viewing this in their species of choice.

You can save the model you have created, take a picture and even request a quote.

Step by Step – using the Cladding Visualiser

Open the link to the Cladding Visualiser

- Select a building image most similar to the project in question
- Add chosen features such as windows and doors, and select finishes
- Choose the preferred cladding profile, species and coating
- View the end result
- Save or share the image



“ The Cladding Visualiser is a valuable tool to help make important decisions about which cladding designs and materials work best in different environments. It also helps others to see the impact of the end result in a form which approximates to the real world. ”

Scan the QR code to see the Cladding Visualiser work

CLADDING PRODUCTS OVERVIEW

Species	Accoya®	Western Red Cedar	British Larch	Radiata Pine Thermowood	Redwood Thermowood	Redwood
Type	Softwood	Softwood	Softwood	Softwood	Softwood	Softwood
Origin	New Zealand Modified in Holland	Canada and North America	UK	New Zealand Modified in Finland	Finland	Finland / Sweden
Durability	Class 1	Class 2	Class 3	Class 2	Class 2	Class 4
Certification	FSC® Certified	PEFC. Very little FSC® Certified	FSC® Certified	FSC® Certified/PEFC	FSC® Certified	FSC® Certified/PEFC
Movement Class	Very Small	Small	Medium	Small	Small	Medium
Moisture Content	8-10%	KD max 20% Green 45% +	18-20%	5%	5%	16-18%
Density	400-600 kg/m^3	300-340 kg/m^3	550 kg/m^3	350-480 kg/m^3	350-480 kg/m^3	480-520 kg/m^3
Knots	Very Few	Few	Variable	Almost Zero	Variable	Variable
Colour	Golden Brown with a bronze glow. Ages to a silver grey over time	Reddish Brown heartwood. Sapwood can be creamy white. Ages to a silver grey over time	Pale Brown with a Pink hue	Golden Brown with a bronze glow. Ages to a silver grey over time	Dark Brown. Ages to a silver grey over time	Straw to Pale Brown. Will redden with age
Suitable for Factory Coating	Yes	Yes but must be Kiln Dried	Yes	Yes	Yes	Yes
Modified Timber	Chemically Modified	No	No	Yes Thermally Modified	Yes Thermally Modified	No
Fixings	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Wastage	15 - 20% due to brittleness	5 - 10%	10 - 15%	15 - 20% due to brittleness	15 - 20% due to brittleness	5 - 10%

CLADDING PROFILES

Standard cladding profiles available from International Timber.
Bespoke profiles available on request.

ITC1
Installation - Horizontal
Face Covering - 133mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC2
Installation - Both
Face Covering - 132mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC3
Installation - Both
Face Covering - 82mm
Nominal Thickness - 19mm
Nominal Width - 100mm

ITC4
Installation - Horizontal
Face Covering - 127mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC5
Installation - Horizontal
Face Covering - 122mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC6
Installation - Both
Face Covering - 125mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC7
Installation - Horizontal
Face Covering - 132mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC8
Installation - Both
Face Covering - 100mm
Nominal Thickness - 25mm
Nominal Width - 125mm

ITC9
Installation - Vertical
Face Covering - 122mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC10
Installation - Both
Face Covering - 125mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC11
Installation - Vertical
Face Covering - 132mm
Nominal Thickness - 25mm
Nominal Width - 140mm

ITC12
Installation - Horizontal
Face Covering - 122mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ITC13
Installation - Horizontal
Face Covering - 122mm
Nominal Thickness - 38mm
Nominal Width - 150mm

ITC14
Installation - Horizontal
Face Covering - 122mm
Nominal Thickness - 38mm
Nominal Width - 150mm

ITC15
Installation - Vertical
Face Covering - 122mm
Nominal Thickness - 25mm
Nominal Width - 150mm

ACCOYA®
(Pinus radiata)

Accoya® wood is fast becoming the material of choice for exterior applications. This elegant and durable option is now used for a wide range of applications, from decking, cladding and siding through to windows and doors and projects previously only achievable using less sustainable materials.

Spanning eight decades of research, Accoya® wood combines past and present scientific wood acetylation study with a proprietary production process to deliver reliable commercial-scale results.

When producing Accoya®, the chemical structure of the wood is modified from the surface to the core, providing a class-leading, durable and exceptionally stable product.

Only abundantly available, fast growing source species, such as Radiata pine, are used to create Accoya®. This species produces larger volumes of wood over the same time span using the same land area when compared with alternatives, providing obvious environmental advantages.

The enhanced durability of Accoya® facilitates a lifespan of at least 50 years above ground and 25 years in-ground, improving carbon sequestration potential and lowering lifetime material consumption versus other materials.

SPECIFICATION

Type	Softwood
Origin	New Zealand. Modified in Holland
Durability	Class 1
Certification	FSC® Certified
Movement Class	Very Small
Moisture Content	8-10%
Density	400-600 kg/m^3
Knots	Very Few
Colour	Golden Brown with a bronze glow. Ages to a silver grey over time
Suitable for Factory Coating	Yes
Modified Timber	Chemically Modified
Fixings	Stainless Steel
Wastage	15 - 20% due to brittleness

PERFORMANCE

- HIGHLY STABLE
- HIGHLY DURABLE
- 50 YEAR WARRANTY

SUSTAINABILITY

- LOW CO_2 EMISSIONS
- 100% RECYCLABLE
- SUSTAINABLY SOURCED
- LOW ENVIRONMENTAL IMPACT

FINISH

- BESPOKE OPTIONS
- IDEAL FOR COATING
- WIDE BOARDS AVAILABLE

WESTERN RED CEDAR
(Thuja plicata)

Western Red Cedar is a tree of the northern Rocky Mountains and Pacific North West. Its full range extends from Alaska southwards to California, and eastwards through British Columbia, northern Washington, Idaho and Montana to the western slope of the continental divide.

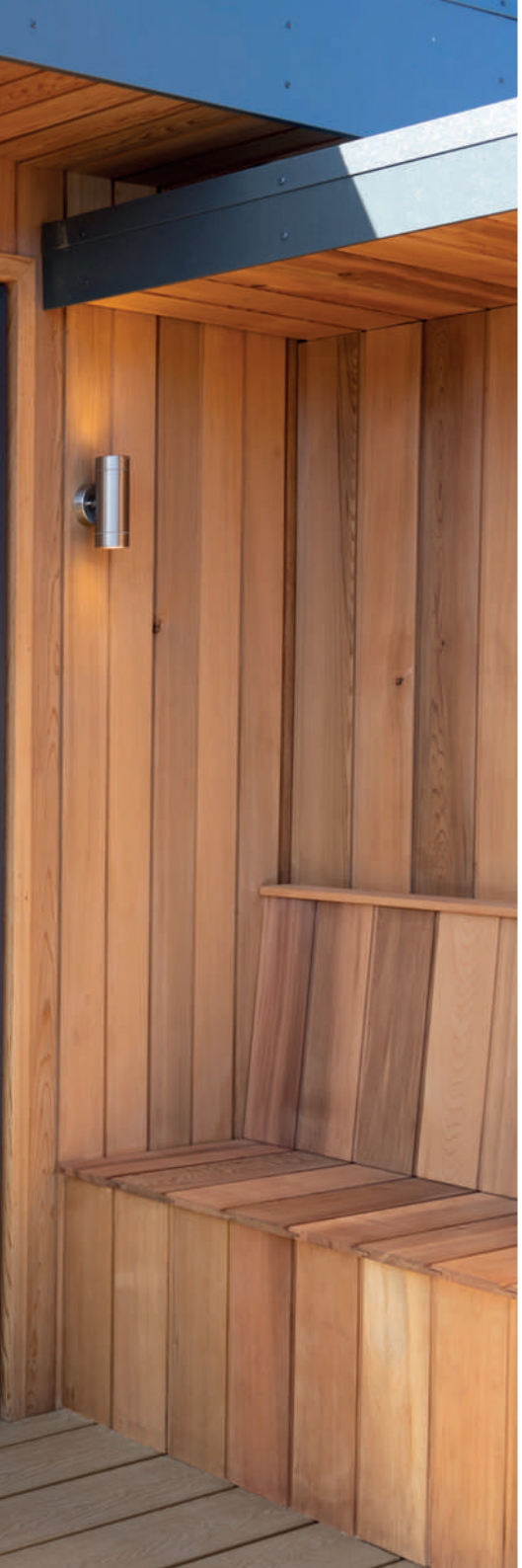
The largest of the cedars, it grows to a height of 45 – 75 metres with a diameter of 1 - 2.5 metres.

The sapwood is narrow and white in colour, and the heartwood is reddish-brown. When freshly felled, the heartwood often displays a marked variation in colour; the centre of the log can be a dark chocolate brown, changing to salmon pink nearer the sapwood, or the wood may be variegated with alternate dark and light zones.

After conventional high temperature kiln drying, the wood assumes a uniform reddish-brown tone. After long exposure to weather the colour is lost, and the wood becomes an attractive silver grey, a weathered appearance which is often purposely sought by architects.

The wood is non-resinous, straight-grained, somewhat coarse-textured and exhibits a fairly prominent growth ring figure. It is soft, rather brittle and aromatic, especially when wet, and light in weight, about 390kg/m^3 when dried.

Photograph courtesy of garden pod specialists Making Your Space



SPECIFICATION

Type	Softwood
Origin	Canada and North America
Durability	Class 2
Certification	PEFC. Very little FSC® Certified
Movement Class	Small
Moisture Content	KD max 20% Green 45% +
Density	300-340 kg/m^3
Knots	Few
Colour	Reddish Brown heartwood. Sapwood can be creamy white. Ages to a silver grey over time
Suitable for Factory Coating	Yes but must be Kiln Dried
Modified Timber	No
Fixings	Stainless Steel
Wastage	5 - 10%

Shingles & Shakes

BRITISH LARCH
(Larix decidua)

Widespread across the UK, the British larch is a deciduous softwood which is known for its strength and ability to resist warping and shrinkage. The timber retains a high resin content which contributes to its natural resistance to decay and rot.

British larch is a medium density softwood, typically growing to 30m in height and living for 250 years. The wood is faintly scented with pinkish-brown bark and heartwood which retains attractive pale reddish-brown to golden coloration characterised by lighter sap rings, silvering over time. Naturally insect-repellent due to its high resin content, British larch is ideal for construction and external use.

One of the toughest softwoods available, it is a low maintenance option known for durability and longevity, exceeding the performance characteristics of European redwoods. Classed as moderately durable, it features a straight grain with minimal knots and is reasonably heavy, weighing 550kg/m^3 when dried.

SPECIFICATION

Type	Softwood
Origin	UK
Durability	Class 3
Certification	FSC® Certified
Movement Class	Medium
Moisture Content	18-20%
Density	550 kg/m^3
Knots	Variable
Colour	Pale Brown with a Pink hue
Suitable for Factory Coating	Yes
Modified Timber	No
Fixings	Stainless Steel
Wastage	10 - 15%

RADIATA PINE THERMOWOOD
(Pinus radiata)

Radiata Pine Thermowood offers an alternative cladding solution to cedar and is produced from the finest quality Radiata Pine, sourced from New Zealand. Sustainable Radiata Pine is fast-growing and yields large logs in less than 30 years.

In addition, the modification process uses only heat and steam, changing the chemical structure of the timber to improve basic performance characteristics, making it more durable and stable.

Radiata Pine Thermowood is an attractive and lustrous golden brown in colour with a slight bronze glow and virtually clear of knots. The wide open grain structure of the wood means it accepts paints and stains well.

With no chemicals added during the treatment processes, Radiata Pine Thermowood is a sustainable and ecological choice. This material displays only half the amount of dimensional change in comparison with unmodified Radiata Pine used in the same environment.

SPECIFICATION

Type	Softwood
Origin	New Zealand. Modified in Holland
Durability	Class 2
Certification	FSC® Certified/PEFC
Movement Class	Small
Moisture Content	5%
Density	350-480 kg/m^3
Knots	Almost Zero
Colour	Golden Brown with a bronze glow. Ages to a silver grey over time
Suitable for Factory Coating	Yes
Modified Timber	Yes Thermally Modified
Fixings	Stainless Steel
Wastage	15 - 20% due to brittleness

REDWOOD THERMOWOOD
(Pinus sylvestris)

Redwood Thermowood is produced by heat treating selected Scandinavian Pine, changing the chemical and physical properties of the timber and transforming it into a product with Class 2 durability (BN EN 350). This thermal process enhances the chemical and physical properties of the timber, providing a range of important benefits including greater durability and stability with no toxic chemicals or additives.

Thanks to its strength and mould resistance combined with excellent thermal qualities, Redwood Thermowood is a natural choice for cladding. It is also suitable for use in a range of outdoor applications subject to wet conditions, including decking.

A harder and knottier wood than cedar, Redwood Thermowood darkens to an attractive deep brown and will weather over time to a silver grey appearance in areas where atmospheric pollution is low. The timber can be cut and used without requiring additional treatment.

Redwood Thermowood has a projected service life of 30+ years.

Photographs courtesy of Highline Homes

SPECIFICATION

Type	Softwood
Origin	Finland
Durability	Class 2
Certification	FSC® Certified
Movement Class	Small
Moisture Content	5%
Density	350-480 kg/m^3
Knots	Knots can vary in size and quantity ranging from a nail knot which is less than 6mm to a large knot that can be more than 40mm in diameter.
Colour	Dark Brown. Ages to a silver grey over time
Suitable for Factory Coating	Yes
Modified Timber	Yes Thermally Modified
Fixings	Stainless Steel
Wastage	15 - 20% due to brittleness

REDWOOD
(Pinus sylvestris)

European Redwood, also known as Scots Pine or Scandinavian Redwood, is an evergreen coniferous tree known for its quality and performance. It is native to Eurasia, from Western Europe to Eastern Siberia, and grows as far north as the Arctic Circle. Trees grow up to 35 metres in height with a trunk diameter up to 1.7 metres.

The timber is light to reddish brown in colour, whilst the sapwood tends to be a creamy-white to yellow colour, with the heartwood a slightly darker reddish-brown. The grain is straight with an even texture, resulting in an aesthetically pleasing product which is strong and moderately hard.

Redwood is a resinous timber and can sometimes extrude resin, which is easily managed. It has a dry density around 470kg/m3. Suitable for use both internally and externally, treatment is recommended for external use to improve longevity and performance.

SPECIFICATION

Type	Softwood
Origin	Finland / Sweden
Durability	Class 4
Certification	FSC® Certified/PEFC
Movement Class	Medium
Moisture Content	16-18%
Density	480-520 kg/m^3
Knots	Knots can vary in size and quantity ranging from a nail knot which is less than 6mm to a large knot that can be more than 40mm in diameter.
Colour	Straw to Pale Brown. Will redden with age
Suitable for Factory Coating	Yes
Modified Timber	No
Fixings	Stainless Steel
Wastage	5 - 10%

SERVICES

Bespoke Machining

International Timber continues to invest heavily in its manufacturing sites, utilising state of the art Weinig equipment and operating some of the best equipped mills in the UK. We operate on a seven days a week, two shift pattern to ensure highly responsive lead times and advanced levels of customer service.

Our technical expertise ensures we provide a consistent, reliable and informed service for our customers. We have the flexibility to accommodate special requirements, meaning we can manage orders quickly and efficiently from start to finish.

Coatings

Being approved factory coaters for all leading paint manufacturers, we provide a choice of coating options to enhance the beauty and prolong the appearance of your timber cladding. Produced at our dedicated coatings facility, we guarantee a consistent paint finish of the highest quality.

Our coatings facility is audited by the paint manufacturers annually; all International Timber sites comply with ISO 9001:2008.

We operate a bespoke vacuum coater as we have found that this is the best and most effective method for coating timber, as well as providing long-lasting results. As the timber passes through the machine, it is coated on all four sides. Coating the timber in this way greatly improves the durability and protection of the finished product.

SiOO:X WOOD PROTECTION

Sikkens coatings

SERVICES

Charred Timber Cladding

Our charred timber cladding uses the ancient Japanese art of charring timber to create visually stunning effects.

Charred cladding has become increasingly popular over the past few years and uses a torch or open flame to create the effect. It's a delicate process requiring patience and precision.

Profiles Available

ITCHAR1

ITCHAR2

ITCHAR3

(All the species photos are shown in this order Dragon/Whiskey/Shadow)

A machined finish will produce a far superior charred product. A sawn face board can be charred but the results will not be as striking.

Accoya

Douglas Fir

Larch

Radiata Pine Thermowood

Redwood

Redwood Thermowood

Whitewood

Fire Treatments

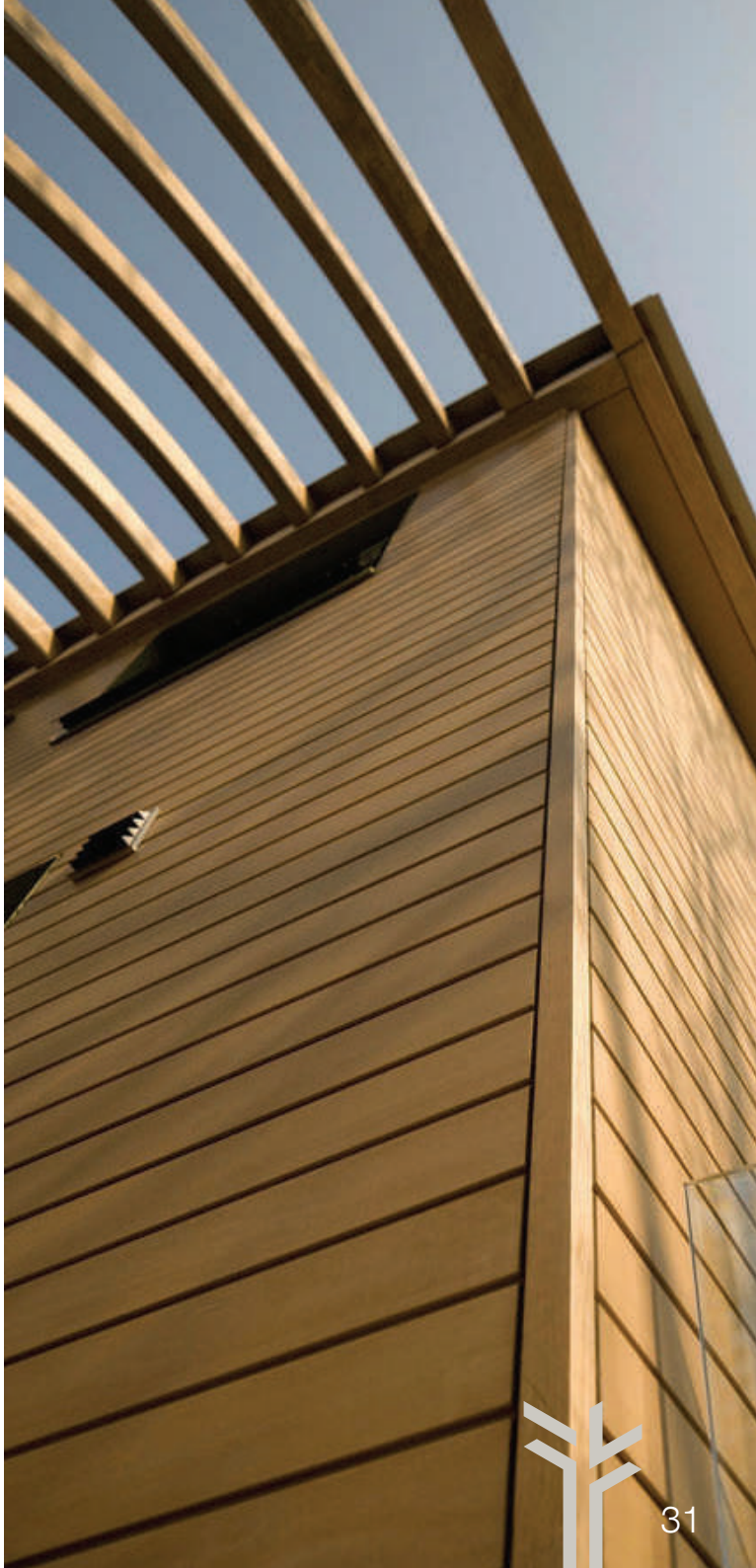
Fire can devastate buildings and lives in a matter of minutes. Protecting against the threat and effects of fire is vital. International Timber can help you specify the correct and most reliable fire protection.

Industrially applied fire retardant treatments provide the peace of mind that in the unlikely event of a fire, the treated timber will be able to withstand fire for a longer period of time. They are suitable for all exterior applications, whilst not compromising the critical engineering properties such as strength and durability.

- Pressure impregnated with a leach resistant exterior grade fire retardant formulation
- Processed under ISO9001 factory-controlled conditions prior to supply
- Provides long lasting protection without further maintenance
- Meets requirements of Building Regulations where Euroclass B or C are required
- Will significantly reduce the spread of fire, heat and smoke generation

BURNBLOCK®

Sentrin FRI



CASE STUDIES
AT ONE WITH NATURE

Heartwood Saunas has selected Western Red Cedar from International Timber – benefitting from superior material quality, excellent sustainability credentials and high levels of service and support.

The high-quality, timber sauna manufacturer aims to provide an experience that is at one with nature and an outdoor lifestyle, with the therapeutic use of heat helping to improve health and wellbeing.

Its products are sought after nationwide, and alongside customer demands for a durable and attractive finish, there is now an expectation that the timber used will be sourced responsibly, with a low environmental impact.

To help meet the exacting standards of its clients, Heartwood turned to International Timber. Western Red Cedar was specified as it is a naturally durable product, which creates an aesthetic appearance, and is kilned to the manufacturer's specific requests.

Ideal for interior and exterior cladding, the timber is resistant to decay and insect attack and seasons to an attractive silver grey appearance. It is also an excellent material for thermal insulation, preventing the heat from escaping.

Western Red Cedar carries PEFC and CSA accreditation, providing Heartwood Saunas with the assurance that the product has been sourced responsibly.

> ***Since we first made contact with International Timber, every transaction has gone without a hitch. The quality of the product is second to none. The sales team knows its timber and is always there to help with any questions or queries.***
>
> ***The specialist services for kilning and bespoke profiles were ideal for my project requirements. I'm particularly pleased with the stunning natural aesthetics that the timber has brought to our range of saunas.***
>
> **Oliver Davey, Founder and Director**
> **Heartwood Saunas**

Photographs courtesy of Heartwood Saunas

From the first call it was clear that Oliver knew what he needed to supply the appropriate quality to his customers. We listened to his requirements and provided a solution. Having our own in-house kilns helps with customers' specific moisture requirements and this has been invaluable in delivering this project. You only have to look at the product that Oliver and his team produce to know that quality is at the forefront of the company ethos. It is great to see our timber lending itself so well to this application."

Bernie Roberts
Cladding Product Manager
International Timber

CASE STUDIES
NATURAL AESTHETICS FOR A GRAND DESIGN

Environmentally friendly larch cladding with an innovative wood protection treatment has helped husband and wife team Dan and Nina Rowland build their sustainable, three-storey dream home in Chichester.

The waterside retreat comprises nearly 1,000 metres of decking and over 6,400 metres of cladding, incorporating SiOO-X wood protection treatment to give the timber a long life and natural surface with even colouration.

Dan and Nina purchased the plot comprising a 1930s house and a stagnant pond, and set about creating a contemporary home bringing together nature with eco-friendly design. Having worked with timber on numerous residential projects, Dan knew that he wanted to incorporate the natural aesthetics of larch into the design, alongside a coating system for additional durability.

The build's environmental credentials were also a high priority, with the couple keen to prioritise natural products that were sustainably sourced alongside a range of innovations including high thermal efficiency, passive ventilation and renewable energy to power their entire home.

Initial requirements had been for machine or sawn finished timber, but the cladding and decking team at International Timber advised a textured finished, which allows the grain of the timber to be showcased to best effect, while retaining a smooth service.

Installation was completed in just two weeks and the couple were so impressed with the finish that they ordered more timber for the kitchen and decking area; bringing the beauty of the external material indoors.

Photographs courtesy
of Studio Fuse

From start to finish, working with International Timber has been really smooth. Everything arrived on time, ensuring that the build went according to plan. It was our dream to build a home for our family that made the most of its natural environment, and the larch cladding and decking have certainly added to the building's overall aesthetic.

Dan Rowlands, Architect

Combining the wood with our innovative SiOO-X coating system, which accelerates the weathering process to provide an even, silver finish, adds an additional versatility. All of our timber is sustainably sourced, so the team always has a real sense of pride when they can see the product being used in projects like this, which are focused on the minimising overall environmental impact.

Bernie Roberts
Cladding Product Manager
International Timber

CASE STUDIES
MAKING WAVES WITH ACCOYA®

International Timber recently teamed up with experiential accommodation constructor Armadilla to provide cladding for its brand-new product called the 'Wave'. These luxury holiday lookouts have now been constructed on a customer's site near Fort William in the northwest of Scotland.

The innovative design of the holiday pods required cladding timber measuring six metres in length, which could be curved and bent to create an organic wave-like shape that gives the product its name.

The structure is composed of Structurally Insulated Panels (SIPS), designed to be attached to a rib structure which in turn supports the exterior cladding. The project was initially challenging, with Armadilla experiencing difficulties in sourcing timber of sufficient length and also problems encountered when attempting to join sections to create sufficient length.

Using Accoya, International Timber was able to successfully overcome these problems. In addition, we liaised with our partner Accsys, who used their specialist production facility in Belgium to create the bespoke six-metre lengths needed for the project. Accoya was also of particular interest to Armadilla due to its 50-year rot-free warranty and significant sustainability benefits.

The project was completed in summer 2021, just in time for the lifting of restrictions in the UK on travelling for holidays. Thanks to the boom in the staycation market over the last year, the five 'Waves' built on the site have been almost fully booked since opening.

The support we received from the entire team at International Timber Grangemouth was incredible and has enabled us to develop a world-leading product. The Waves now sit about 40 metres from the A82 near Ballachulish and have become a landmark on the road with traffic slowing to admire the Waves looking out over the sea loch.

Archie Hunter,
Managing Director, Armadilla

It was great to do be involved in this exciting project with Armadilla, who we have worked with for many years. The Wave is a great innovation from them, and we hope to provide Accoya for it for years to come. Accoya is a brilliantly flexible and versatile material which is great for this concept.

Kevin Anderton,
Senior External Sales,
International Timber

ADDITIONAL GUIDANCE

Performance & Durability

The timber selected needs to be durable enough to meet the desired service life. Cladding is an above ground installation and is categorised in British Standards as Class 3 end use of wood.

Durability can either come from the natural characteristics of the species itself, by adding a wood preservation treatment or through a form of modification such as heat treatment or chemical impregnation.

Use Class Table

USE CLASS	USE
1	Above ground, covered. Permanently dry, insect risk.
2	Above ground, covered. Occasional risk of wetting.
3a	Above ground, coated. Exposed to frequent wetting.
3b	Above ground, uncoated. Exposed to frequent wetting.
4	In contact with ground or fresh water. Permanently exposed to wetting.

The natural durability of wood differs from species to species.

Durability Class Table

NATURAL DURABILITY CLASS	DESCRIPTION	DESIRED SERVICE LIFE / YEARS	
		[1]Occasionally wet	Frequently wet
1	Very Durable	>60	60
2	Durable	60	30
3	Moderately Durable	30	15[2]
4	Slightly Durable	15[2]	<15[2]
5	Not Durable	<15[2]	<15[2]

***Nearly all cladding should be considered as being in the 'frequently wet' category*

***Durability classifications refer to the heartwood only – the sapwood of all species is not durable*

Movement

Timber is hydroscopic which means it responds to changes in the environment such as temperature and humidity. This results in movement across the grain of the timber.

As the degree of movement differs between species, this needs to be taken into consideration when thinking about design and installation. For cladding boards movement classes must either be classed as small or medium.

Timber shrinkage - could result in cladding boards pulling apart, exposing timbers that may not have been coated and making the installation unstable.

Timber expansion - could cause cladding boards to bow or pull away from their fixings, especially with inadequate movement gaps.

Movement gaps by board width and cladding profile are detailed in BS 8605.

Coatings & Finishes

Factors to consider when thinking about coatings are:

- **The aspect of the cladding.** An installation which is West or South facing are more exposed to both driving rain and sunlight.
- **Shading from nearby objects.** If there are other buildings nearby or overhanging trees, these can cause variations in the degree of weathering to an elevation
- **Wood will weather with exposure.** Think about the maintenance that will be required.

In order to improve the adhesion and absorption of the coating or treatment to the timber, we sand the face prior to coating. This opens the grain of the timber to ensure maximum penetration and increases the performance of the coating once finished. We have the ability to produce a range of surface finishes on the timber prior to coating or treatment, this ranges from planed, textured, brushed, sawn face or shippers face. This selection of surface finishes allows us to offer our customers a wide variety of options in order to meet their design specification.

End Grain Sealing

It is vital to seal the ends of timber cladding. Timber is hydroscopic and will take in and expel moisture as the humidity around the timber increases or decreases. Examples of how end grain sealer affects timber moisture uptake:

Blue dye shows uptake of moisture in 24hrs with no end grain sealer applied

Sealer applied on end grain shows no uptake of moisture in 24hrs

Fire Treatments

Fire retardants (FR) work by reducing the surface spread of flame, heat and smoke release which provides time for a safe escape.

It is recommended that timber requiring fire treatment is done in controlled conditions and by an approved factory application. The use of site brush or spray applied fire treatments are NOT approved by the Wood Protection Association (WPA) and therefore are not offered by International Timber.

WPA
Wood Protection Association

Ensure that Building Regulations are adhered to where the use of FR cladding has been specified.

ADDITIONAL GUIDANCE

Fixings

It is recommended that fixings be made of a non corrosive material. Stainless Steel fixings are ideal for all timber species. Other material can cause permanent black spotting and corrosion staining to the surface of the cladding.

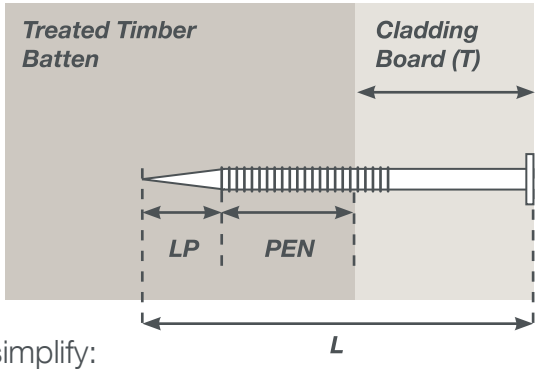
The idea of a fastener is that it secures the cladding board firmly in position and provides adequate penetration into the supporting timber battens. There is no advantage to the fixing penetrating the back of the timber batten.

Eurocode 5 details the following: -

Board(s) thickness (T) – If using 2 overlapping boards, simply add the thicknesses together.

Penetration (PEN) minimum of 19mm into the supporting batten

Nominal length of fastening Point (LP) 5mm for nails & 10mm for screws



To simplify:

(L) = T + PEN + LP
The fastener length guidance can be summarised as Nails = Total board thickness + 24mm Screws = Total board thickness + 29mm

Ring Shank Nails recommended minimum diameter of 2.3mm

Screws recommended minimum diameter of 4.0mm

All fixing should finish flush with the cladding face and NOT puncture the surface. For most species a head twice the size of the diameter of the fixing is best. This will avoid head side pull through. If using a screw, it may be prudent to pre drill a hole 70% of the shank diameter to avoid splitting.

If using a pneumatic fixing gun, ensure fixing are not driven below the cladding face. A hand held impact driver is best if using screws, as these are less likely to damage the

Storage

Upon delivery it is essential that the cladding is stored correctly in order to protect it from the elements, mainly rain, frost and snow. When packs of timber are not stored correctly moisture can penetrate through the transit wrapping. The packaging covering your product is for transport purposes and is not a sole means of protecting it from the elements. Always store your product undercover and keep it dry at all times. We strongly recommend placing your pack of timber on bearers/skids in order to keep it off the floor and away from any running or standing water. If it is not possible to store your timber in pack form under cover then it is essential that a second waterproof sheet such as an extra thick tarpaulin is used in order to fully cover the pack.

Recommended Good Practice

- It is essential that care is taken to protect your cladding product from mechanical damage caused during handling and unloading of the product.
- Store and handle the products in accordance with site best practise.
- Remove any airtight packaging prior to storage to allow free ventilation of the product.
- Avoid storing in direct sunlight.
- Store off the ground on suitable bearers/ skids.
- Keep covered to avoid any contaminants such as dust, dirt or moisture.
- Storage areas should be dry and well ventilated and not subject to extreme temperatures.

Failure to follow this recommended good practise may result in product failure.


international
timber