DURONN®

Creating a future of intelligent and affordable living.

Mono Home Module: Specifications and Applications

This document details the specifications and potential applications of the Mono Home Module.

Overview

Mono Cabins Edition V1.Y25

Mono Cabins Design & Specifications

Duronn Engineering specializes in the design and manufacture of innovative mono modular cabins tailored for the outdoor hospitality sector. These cabins are meticulously constructed to enhance the beauty of natural settings and promote an elevated experience of Nature living.

Duronn is dedicated to the art of designing, constructing, and supplying exquisite cabins that cater to both the hotel and leisure industry and individuals who cherish a life close to nature. Our cabins, thoughtfully crafted from eco-friendly materials, are not only visually stunning but also incorporate advanced smart technologies and energy-efficient features. Each cabin is designed to harmonize with its natural surroundings, offering a serene retreat that combines comfort, functionality, and sustainability.

Exterior

cladding, decking, fencing, outdoor furniture, landscaping.

Interior

wall panels, ceiling, flooring, and other creative design applications.

Thermal Modification

Introduction

As weather patterns shift dramatically across the globe, architects, designers, and builders face a multitude of challenges in their work. Today's buildings must not only exude aesthetic appeal but also possess the structural resilience to withstand the increasingly erratic weather phenomena attributed to climate change. To address these demands, the majority of wood available on the market falls into two categories: chemically treated wood or wood that is naturally resilient and durable. However, both options raise significant environmental and sustainability concerns. These issues encompass the impact of chemical treatments on ecosystems and human health, as well as the ethical implications of sourcing timber from ancient, pristine forests, which are crucial habitats for diverse species.

Concerns are growing among individuals about the environmental impact of construction materials such as concrete, steel, and plastic, which can significantly harm our planet. In light of this, it is crucial to explore methods that reduce energy consumption in our building practices. One promising alternative is the use of wood. The process of transforming timber into products consumes far less energy compared to the manufacturing of other materials. Additionally, wood is a far more sustainable choice; it naturally decomposes over time, enriching the soil, and plays a vital role in sequestering carbon dioxide from the atmosphere, thus contributing to a healthier environment.

Thermally-modified wood has emerged as an excellent option for construction due to its impressive strength and durability. This process involves heating the wood to high temperatures in a controlled environment, which not only enhances its structural integrity but also significantly increases its lifespan. As a result, thermally-modified wood is less susceptible to deterioration from moisture and pests compared to traditional wood. Additionally, it serves as a sustainable alternative to conventional building materials, making it an eco-friendly choice for both residential and commercial projects. Its natural appearance and versatility also allow for a wide range of aesthetic applications, further solidifying its position as a preferred material in modern architecture.

Thermal modification penetrates significantly below the surface of the wood.

In contrast to chemical impregnation, thermal modification fundamentally enhances the integrity of the wood throughout its entirety, rather than merely improving the surface layer. This process guarantees that the resulting boards exhibit exceptional stability and durability across all dimensions.



HIGH DURABILITY

Thermal modification increases the durability of wood, allowing it to achieve the highest durability classification.



STABLE

The most dimensionally stable wood in fluctuating weather conditions.



BETTER INSULATING QUALITIES

It remains relatively cool when exposed to sunlight.



SAFE WASTE HANDLING

There is no need to treat Thermory wood as hazardous waste.



LIGHTER MATERIAL

Lower moisture content makes the material lighter.



SUSTAINABLE

Thermal treatment is chemical-free modification

Timber Types

Thermo-Ash

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

THERMO-ASH

Thermo-ash is an incredibly robust material that falls into the Class 1 category, signifying its exceptional durability and resilience. This innovative wood undergoes a specialized thermal treatment process that not only enhances its structural strength but also provides unmatched protection against wood decay for over 25 years. Consequently, Thermo-ash emerges as a valuable and sustainable alternative to conventional tropical wood species, making it an ideal choice for environmentally conscious projects without compromising on quality or longevity.



APPLICATION

Exterior

cladding, decking, fencing, outdoor furniture, landscaping.

Interior

wall panels, ceiling, flooring, and other creative design applications.

Timber Types

Thermo-Pine

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

THERMO-PINE

The natural appearance of thermally modified pine boasts a rich golden-brown hue, accentuated by unique, intricate knots that add character and charm. This wood is distinguished by its elevated resin content, lending it a subtle sheen and enhanced durability compared to other species. The warm tones and distinctive features combine to create a visually appealing material that captures the essence of nature.



APPLICATION

Exterior

cladding, decking, landscaping, roofing, outdoor glulam beams, posts, battens.

Interior

wall panels, ceilings.

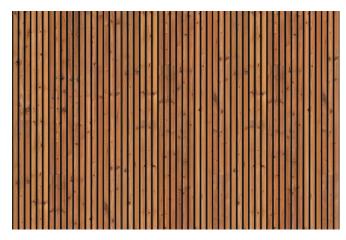
Timber Types

Thermo-Spruce

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

THERMO-SPRUCE

Thermo-Pruce is a premium softwood solution renowned for its remarkable rot resistance and long-lasting durability. This wood features a stunning array of natural knots that add character and charm, all while showcasing a beautifully warm golden-brown hue. Its appealing aesthetic and resilience make it an ideal choice for various applications, blending functionality with breathtaking beauty.



APPLICATION

Exterior

cladding, decking, landscaping, posts, beams.

Interior

wall panels, saunas.

Timber Types

Thermo Radiata Pine

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

THERMO RADIATA PINE

Thermally modified radiata pine exhibits a rich, warm caramel hue that adds a touch of sophistication to any space. This exquisite softwood, free from knots, offers remarkable stability and durability, making it an ideal choice for various applications. Each board is distinct, proudly displaying its individual grain patterns that reflect the beauty of nature. Its unique characteristics ensure that no two pieces are alike, enhancing the aesthetic appeal of your projects.



APPLICATION

Exterior

cladding.

Interior

wall panels, ceilings, saunas, wellness spaces, other creative design applications.

Timber Types

Thermo-Oak

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

THERMO-OAK

This exquisite brown cladding is meticulously crafted for individuals who appreciate the finest quality and elegance. Made from thermo-oak, a remarkable hardwood known for its striking, natural grain patterns, this cladding not only enhances aesthetics but also provides exceptional durability comparable to that of thermo-ash. Its rich color and texture add a touch of sophistication to any space, making it the ideal choice for those who desire both beauty and resilience in their design.



APPLICATION

Exterior

cladding.

Interior

wall panels, ceilings.

Timber Types

Thermo-Magnolia

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

THERMO-MAGNOLIA

Magnolia wood showcases a beautiful creamy golden hue, intricately interspersed with darker areas that highlight its unique natural grain, reminiscent of the textures found in ash and radiata pine. Its low density lends itself perfectly to a variety of interior applications, including the warm, inviting ambiance of saunas. The wide boards further elevate its elegance, while the deep, rich tones achieved through thermal modification enhance its luxurious and exclusive appearance, making it a stunning choice for any sophisticated space.



APPLICATION

Exterior

wall panels.

Interior

wall panels, bench boards.

Timber Types

Thermo-Aspen

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

ASPEN / THERMO-ASPEN

Aspen and thermo-aspen are popular choices for interior design and sauna construction. Both the natural and thermally modified varieties of aspen are highly sought after for their aesthetic and functional qualities. The wood showcases a lovely, light color that adds a sense of brightness and openness to any space. Its smooth texture enhances not only the visual appeal but also provides a tactile experience that feels inviting and luxurious. Whether used in a cozy sauna or as a striking element in home decor, aspen brings a warm and contemporary touch to interiors.



APPLICATION

Exterior

wall panels.

Interior

wall panels, bench boards, other sauna elements

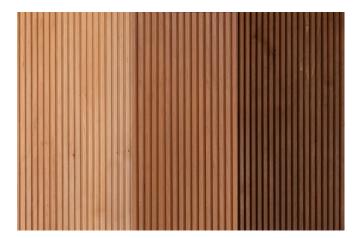
Timber Types

Thermo-Alder

Our cabins are constructed using natural and thermally modified wood products, offered in a diverse range of profiles and dimensions.

ALDER / THERMO-ALDER

Alder wood is widely celebrated for its versatility in crafting an array of materials and products, particularly for interior spaces and luxurious saunas. Available in both thermally modified and natural finishes, this wood offers a range of aesthetic options, including smooth and brushed textures that enhance its visual appeal. Renowned for its durability, Alder wood boasts natural water-repellent properties, allowing it to withstand moisture while maintaining its integrity. Additionally, it has a unique ability to remain cool to the touch, even in high temperatures, making it an exceptional choice for our sauna projects where comfort and performance are paramount.



APPLICATION

Exterior

wall panels.

Interior

wall panels, bench boards, other sauna elements



Base Drawings

UNO BLACK STUDIO U10-M

UNO BLACK

from **€15,200**

Inside

Height: 2,4m Length: 4,9m Width: 3,2m

Usable Internal Area: 16m2

Outside:

Height: 3,3m Length: 5,3m Width: 3,6m

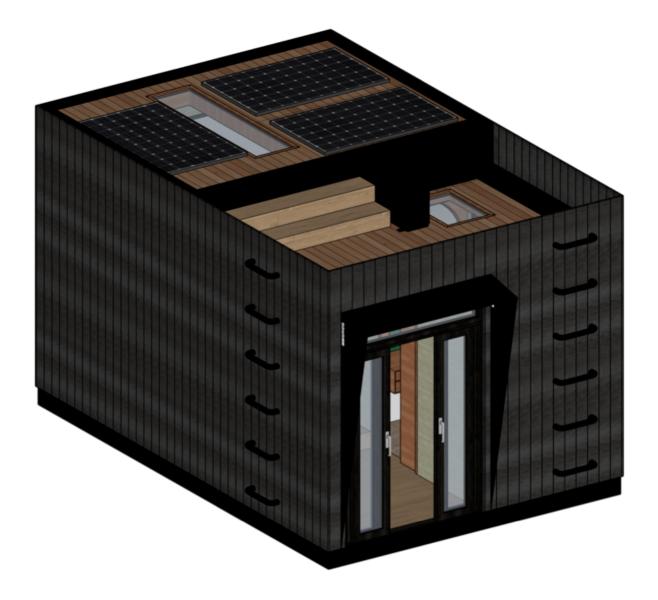
Total External Area: 19.08m2



CLADDDING

Material: Thermo Pine Color: Vivid Translucent 3 Black

Sophisticated cladding that mimics the natural appearance of exposed timber.



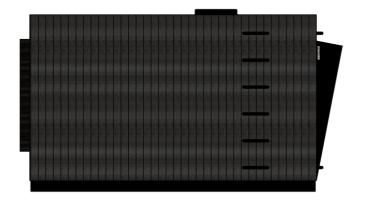
Base Drawings

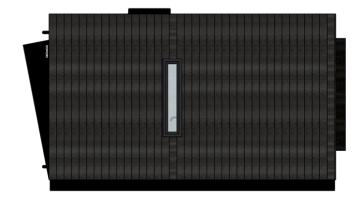
UNO BLACK STUDIO U10-M

UNO BLACK

Facades









Base Drawings

UNO GREEN STUDIO U10-M

UNO GREEN

from **€16,200**

Inside

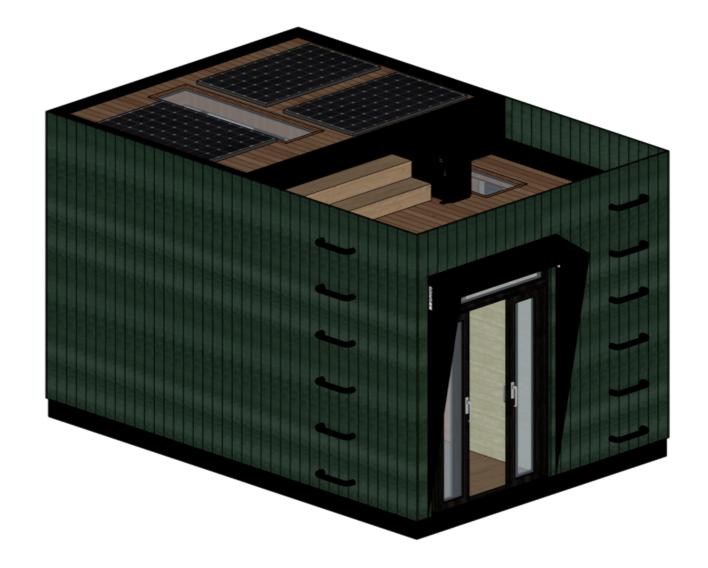
Height: 2,4m Length: 4,9m Width: 3,2m

Usable Internal Area: 16m2

Outside:

Height: 3,3m Length: 5,3m Width: 3,6m

Total External Area: 19.08m2

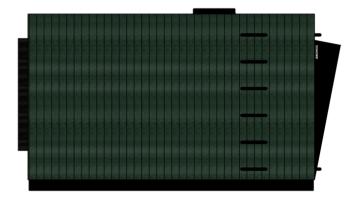


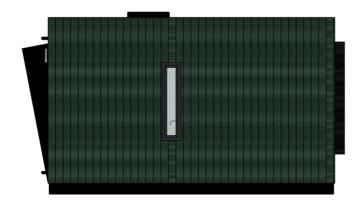
UNO GREEN STUDIO U10-M

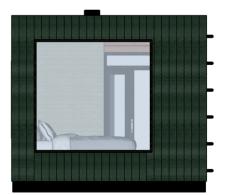
UNO GREEN

Facades









Base Drawings

UNO PINE STUDIO U10-M

UNO PINE

from **€15,200**

Inside

Height: 2,4m Length: 4,9m Width: 3,2m

Usable Internal Area: 16m2

Outside:

Height: 3,3m Length: 5,3m Width: 3,6m

Total External Area: 19.08m2



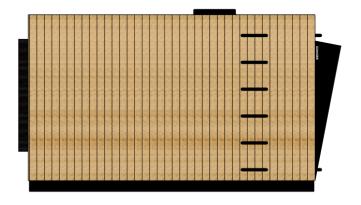
Base Drawings

UNO LIGHT PINE STUDIO U10-M

UNO PINE

Facades









Base Drawings

UNO RED STUDIO U10-M

UNO RED

from **€16,200**

Inside

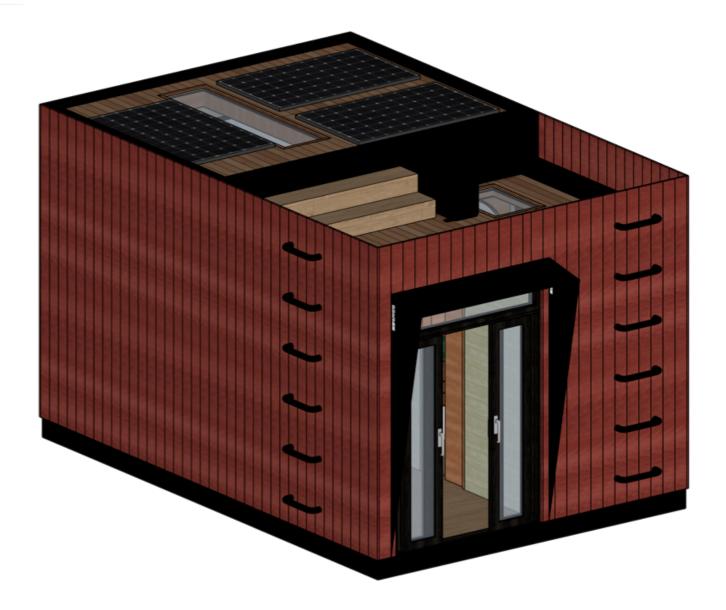
Height: 2,4m Length: 4,9m Width: 3,2m

Usable Internal Area: 16m2

Outside:

Height: 3,3m Length: 5,3m Width: 3,6m

Total External Area: 19.08m2



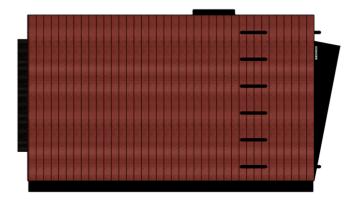
Base Drawings

UNO RED STUDIO U10-M

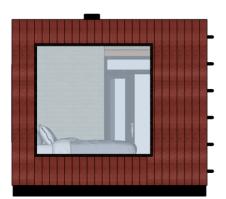
UNO RED

Facades









Base Drawings

UNO THERMO RADIATA PINE STUDIO U10-M

UNO THERMO RADIATA PINE

from **€17, 600**

Inside

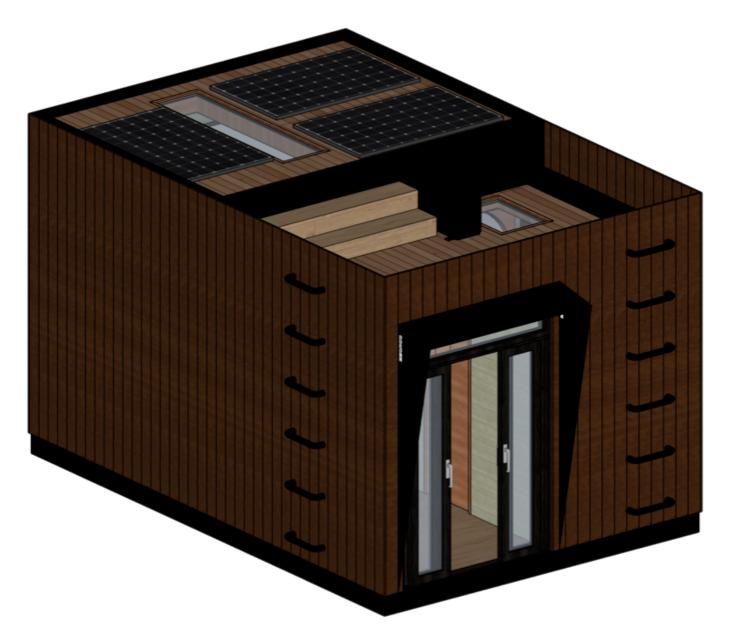
Height: 2,4m Length: 4,9m Width: 3,2m

Usable Internal Area: 16m2

Outside:

Height: 3,3m Length: 5,3m Width: 3,6m

Total External Area: 19.08m2



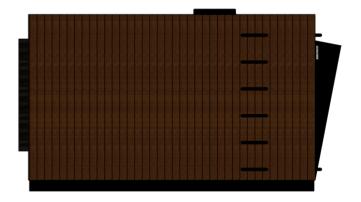
Base Drawings

UNO THERMO RADIATA PINE U10-M

UNO THERMO RADIATA PINE

Facades









Base Drawings

UNO STUDIO U10-M

UNO CABINS

Floor Plan

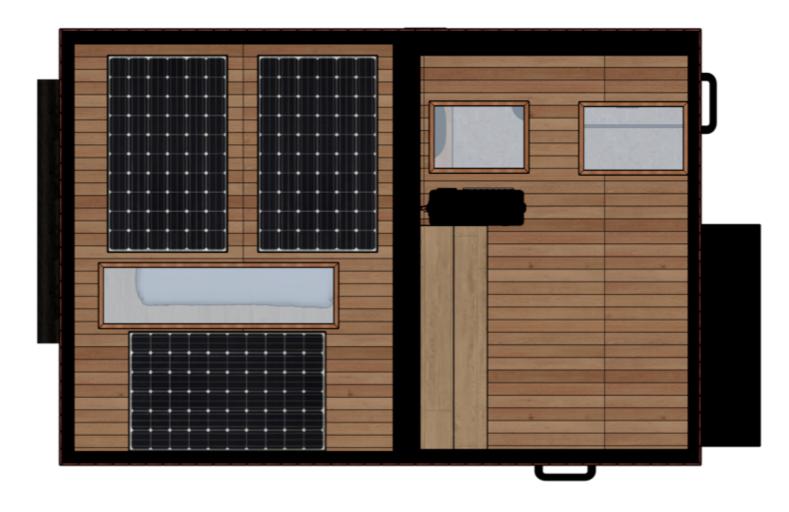


Base Drawings

UNO STUDIO U10-M

UNO CABINS

View from the Roof





Base Drawings

STUDIO CABIN S20-S

STUDIO CABIN - GREEN

from **€32,600**

Inside

Height: 2,4m Length: 7m Width: 3,2

Usable Internal Area: 22,4m2

- Bedroom: 8m2 - bathroom: 3,36m2

- kitchen, living space, corridor: 10,33m2

Outside:

Height: 3,3m Length: 7,4m Width: 3,6m

Total External Area: 26,64 m2

Roof Terrace

Length: 7,4m Width: 3,6m

Total External Area: 26,64m2

OPTIONS:

Vivid Translucent 3 (Thermo Pine)

Vivid Translucent 5 Olive GREEN (Thermo Radiata Pine)

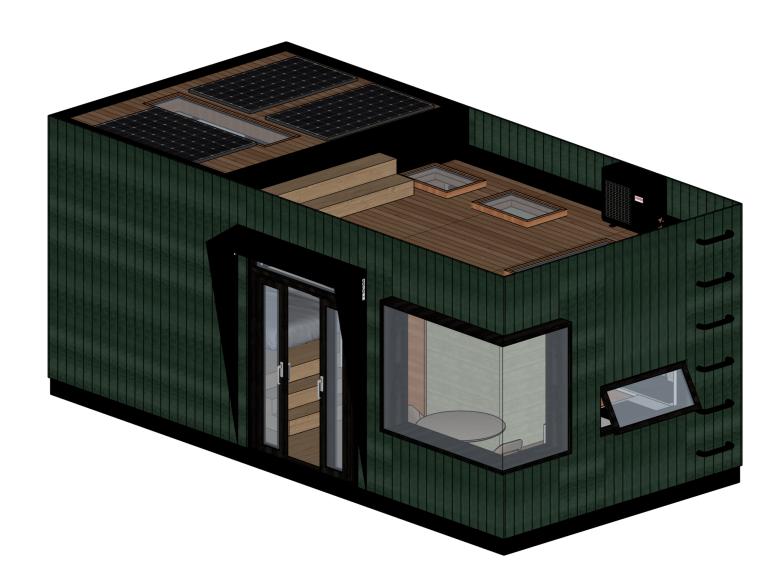
Vivid Opaque 7D

(Thermo Pine Brushed)

Vivid Silvered Light

(Thermo Pine Brushed)

Vivid Opaque 7D Anthracite Gray (Thermo Spruce, Roughed)



Base Drawings

STUDIO CABIN S20-S

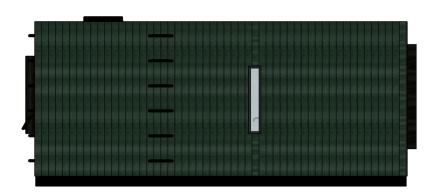
STUDIO CABIN GREEN

Facades









Base Drawings

STUDIO CABIN S20-S

STUDIO CABIN

View from the Top

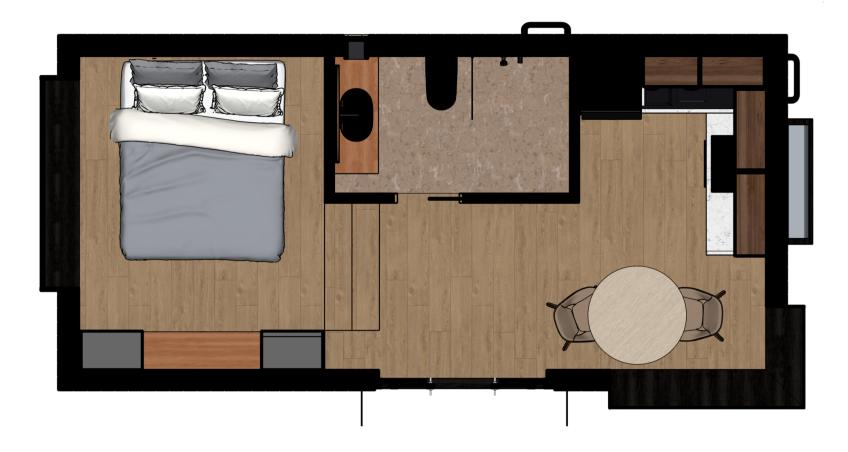


Base Drawings

STUDIO CABIN S20-S

STUDIO CABIN

Floor Plan





Base Drawings

UNO CABIN U10-MB (MONO)

UNO CABIN - LIGHT PINE

from **€17,300**

Inside

Height: 2,4m Length: 5m Width: 3,2m

Usable Internal Area: 16m2

- Bedroom: 8m2 - Bathroom: 3,36m2 - Corridor: 4,08m2

Outside:

Height: 3,3m Length: 5,3m / 6,3m Width: 3,6m

Total External Area: 22,68m2

Balcony

Length: 1m Width: 3,6m

Total External Area: 1,36m2

OPTIONS:

Vivid Translucent 3 (Thermo Pine)

Vivid Translucent 5 Olive

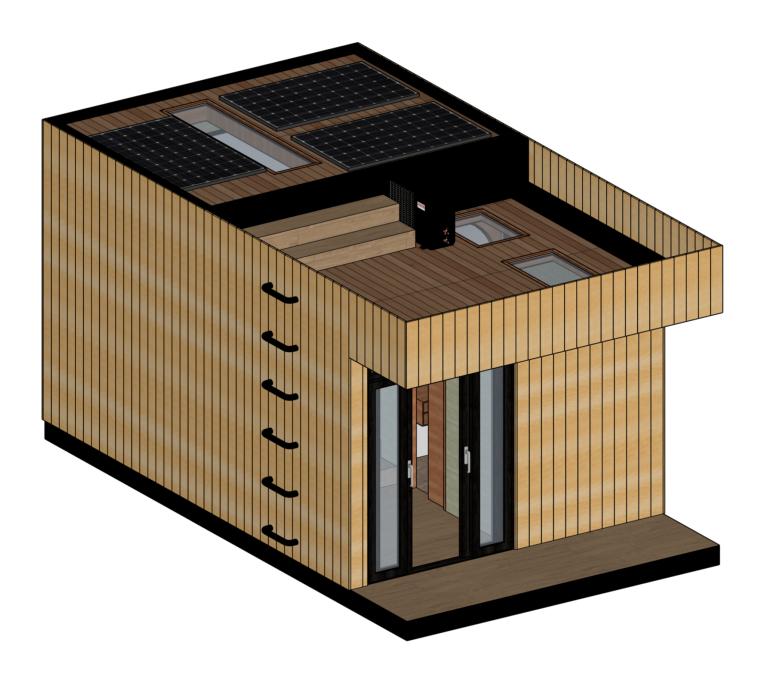
(Thermo Radiata Pine)

 $\underset{\text{\tiny RED}}{\text{Vivid Opaque 7D}}$

(Thermo Pine Brushed)

Vivid Silvered Light LIGHT GREY (Thermo Pine Brushed)

Vivid Opaque 7D Anthracite Gray (Thermo Spruce, Roughed)



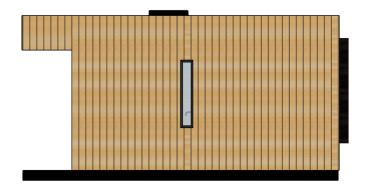
Base Drawings

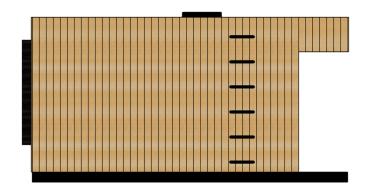
UNO CABIN U10-MB (MONO)

UNO CABIN LIGHT PINE

Facades







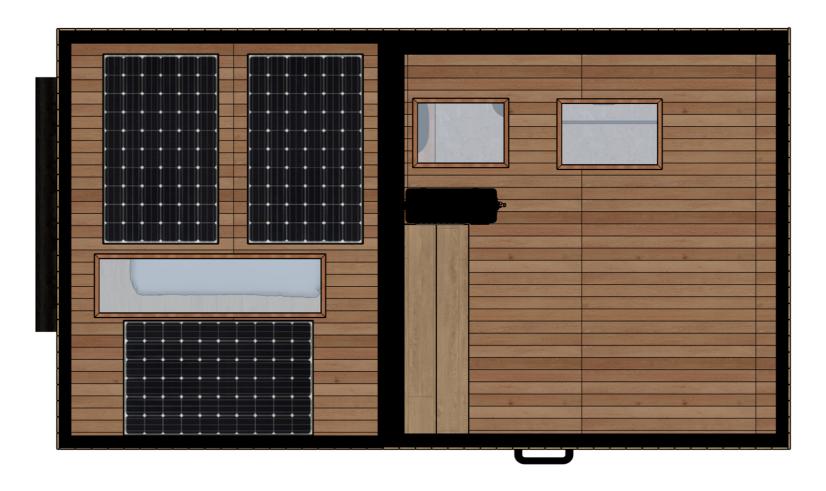


Base Drawings

UNO CABIN U10-MB (MONO)

UNO CABIN

View from the Top



Base Drawings

UNO CABIN U10-MB (MONO)

UNO CABIN

Floor Plan



Base Drawings

PANORAMA SUITE CABIN S20-PSB

PANORAMA CABIN DARK PINE

from **€38,300**

Inside

Height: 2,4m Length: 7m Width: 3,6m

Usable Internal Area: 22,4m2

- Bedroom: 8m2 - Bathroom: 3,36 m2

- Corridor, Kitchen, livin space: 10,22m2

Outside:

Height: 3,8m / 3,3m Length: 8,22m / 7,4m Width: 3,6m

Total External Area: 26,64m2

Roof Terrace

Length: 7,4m Width: 3,6m Area: 26,64m2

OPTIONS:

Vivid Translucent 3 (Thermo Pine)

Vivid Translucent 5 Olive

(Thermo Radiata Pine)

Vivid Opaque 7D (Thermo Pine Brushed)

Vivid Silvered Light LIGHT GREY (Thermo Pine Brushed)

Vivid Opaque 7D Anthracite Gray (Thermo Spruce, Roughed)

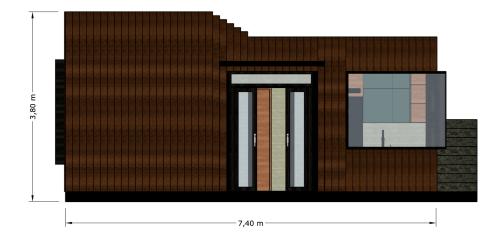


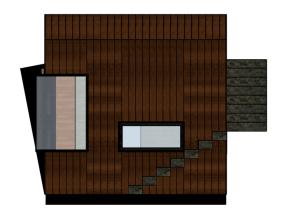
Base Drawings

PANORAMA SUITE CABIN S20-PSB

PANORAMA CABIN DARK PINE

Facades







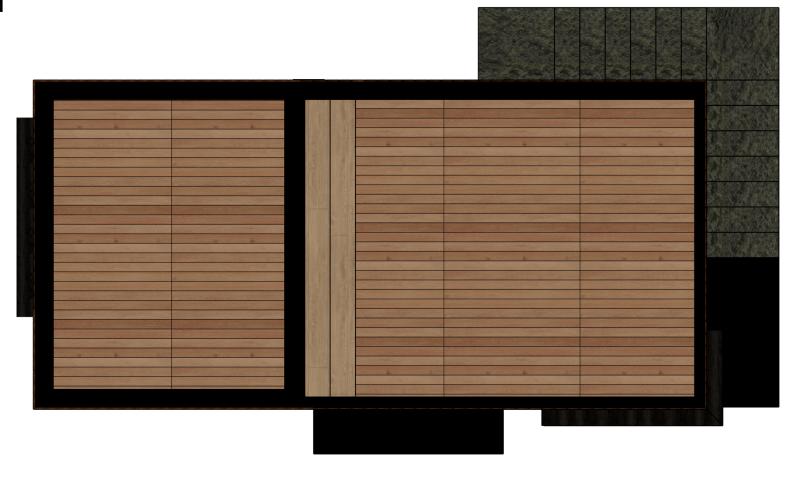


Base Drawings

PANORAMA SUITE CABIN S20-PSB

PANORAMA CABIN

View from the Top

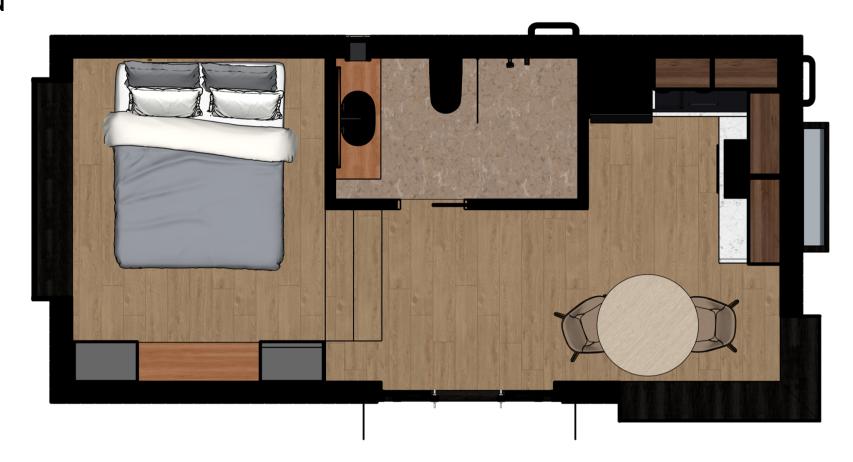


Base Drawings

PANORAMA SUITE CABIN S20-PSB

PANORAMA CABIN

Floor Plan



Wood Aging Process and Longevity

WOOD CARE

Thermowood cladding boards do not necessitate surface treatment. Similar to any untreated wood, the surface of Thermory products will naturally acquire a silver-gray patina over time. This process commences immediately and may take several months to a few years to fully develop, depending on the intensity of UV radiation to which the wood is exposed. Nevertheless, this natural aging process does not compromise the durability of the wood.

THERMO-ASH

A PREMIUM HARDWOOD THAT CONSISTENTLY EXCEEDS ESTABLISHED PERFORMANCE STANDARDS.

DURABILITY CLASS:

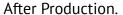
1 (25+ years' protection against wood decay)

AVAILABLE IN:

TEXTURE:

Smooth, Brushed, Roughened







1 Year.



5-20 Years

THERMO-PINE

THE UPDATED DURABILITY STANDARD FOR SOFTWOOD CLADDING.

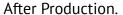
DURABILITY CLASS:

2 (15+ years' protection against wood decay)

AVAILABLE IN: TEXTURE:

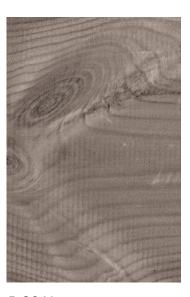
Smooth, Brushed, Roughened







1 Year.



5-20 Years

THERMO-SPRUCE

A RESILIENT SOFTWOOD THAT EXHIBITS INHERENT AESTHETIC APPEAL.

DURABILITY CLASS:

1 (25+ years' protection against wood decay)

AVAILABLE IN:

TEXTURE

Smooth, Brushed, Roughened, Embossed



After Production.

1 Year.

5-20 Years

THERMO RADIATA PINE

A REFINED, KNOT-FREE APPEARANCE ACHIEVED THROUGH THE USE OF DURABLE SOFTWOOD.

DURABILITY CLASS:

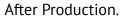
2 (15+ years' protection against wood decay)

AVAILABLE IN:

TEXTURE

Smooth, Brushed, Embossed







1 Year.



5-20 Years

THERMO-OAK

A DISTINCTIVE HARDWOOD KNOWN FOR ITS NATURAL BEAUTY AND ELEGANCE.

DURABILITY CLASS:

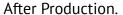
1 (25+ years' protection against wood decay)

AVAILABLE IN:

TEXTURE

Smooth, Brushed







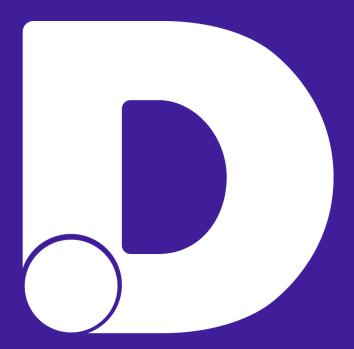
1 Year.



5-20 Years







Designed and Built in Europe.

For more information, please contact us at www.duronn.com.