KLAASWOOD®

MODIFIED WOOD COLLECTION

Formed by
SCIENCE

Formed by
FUNCTION

Formed by
PEOPLE

Formed by
NATURE

INTRODUCTION LETTER

Dear valued customers,

I am thrilled to welcome you to KLAASWOOD® (KWD), a product that has been a dream of mine for the past 10 years. KWD is an innovative wood siding made in the USA, and it represents a significant advancement in the industry.

Our wood siding undergoes a unique modification process. By subjecting the wood to elevated temperatures and pressure in a controlled environment, we are able to alter its chemical and physical properties. This transformation significantly enhances the wood's stability, durability, and resistance to decay and moisture. What's truly remarkable is that we achieve these improvements without the use of any chemicals or biocides.

Compared to untreated wood siding, KWD offers superior stability and durability. It also requires less maintenance and provides enhanced moisture resistance. Our product comes in four colors and can be painted or stained, giving you the flexibility to customize your exterior to your liking. Furthermore, when compared to alternative materials like vinyl or fiber cement siding, KWD stands out with its natural and authentic wood appearance while still offering many of the benefits associated with other siding materials.

At our company, we have been developing modern wood preservative technologies in Scandinavia since 1977. Over the years, we have witnessed the emergence of modified timber and other non-biocide-based modification technologies. While these developments addressed the needs of our future societies, we felt that they were too complex to become real industrial products capable of creating change on a larger scale.

Motivated by this realization, I embarked on a journey to invent a second-generation modern modification technology. This breakthrough has enabled us to establish a process with significantly reduced lead times and energy consumption, improved product performance, and extensive scientific laboratory and field testing. We are proud to say that KWD is the result of this dedication and ingenuity.

But let me assure you that this is only the beginning. We approach our work with a scientific and people-oriented mindset, aiming to develop new modification processes and products that will benefit nature, people, and society as a whole. Our commitment to innovation and sustainability drives us forward, and we are excited to share our future endeavors with you.

As you experience our product firsthand, I hope you can sense the quality and appreciate its aesthetics. Your satisfaction is of utmost importance to us, and we value your feedback and support. We encourage you to join us on this journey and witness what lies ahead.

Thank you for choosing KLAASWOOD®. We are honored to be a part of your vision as well.

Yours sincerely,

Peter Klaas, Ph.D.

Questions?

Please visit **www.klaaswood.com** for more information.

KWD


KLAASWOOD®

KLAASWOOD'S JOURNEY

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- KWD Team Locations
- KWD — KWD Headquarters
- Distribution Locations
- Sawmill

KLAASWOOD® Locations

Arlee, MT
Polson, MT
Portland, OR
Denver, CO (Corp)

Sawmills

Atmore, AL
Kreamer, PA

Distribution Locations

UNITED STATES:
Seattle, WA
Portland, OR
Boise, ID
Coeur D'Alene, ID
Idaho Falls, ID
Salt Lake City, UT
St. George, UT
Denver, CO
Chicago, IL
Elkhart, IN
Albany, NY
Rochester, NY

CANADA:
Victoria, BC
Burnaby, BC
Kelowna, BC
Calgary, AB
Edmonton, AB
Toronto, ON

KLAASWOOD®

MODIFIED WOOD

OUR DIFFERENCE

Through innovation, we push the boundaries of wood modification technology. We make high-performing and beautiful modified wood accessible to all.

Today, and for generations to come.

MADE IN THE USA

KLAASWOOD® manufacturers and produces modified wood products in Montana. The company sources the wood in the U.S using sustainable forestry practices.

ENHANCED DURABILITY

KLAASWOOD® becomes more resistant to decay, rot, and fungal growth, increasing its lifespan. The wood meets the requirements of Durability Class One performance, which is the highest achievable level of durability.

INCREASED DIMENSIONAL STABILITY

The treatment process reduces the wood's ability to absorb or release moisture, resulting in improved stability and reduced warping, shrinking, or swelling. Over time, this reduces the development of surface cracks. If the wood is coated, the coating will last longer because of the reduced swelling and shrinking.

ENVIRONMENTALLY FRIENDLY

The modification process is carried out without the use of chemicals, making it a sustainable alternative compared to some other wood treatments using biocides. It is also fully recyclable and has a very low Carbon footprint compared to other products.

BETTER MOISTURE RESISTANCE

Heat treatment lowers the wood's ability to absorb moisture, reducing the risk of damage from moisture-related issues.

NATURAL APPEARANCE

Modified wood maintains its natural wood appearance while achieving improved performance.

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

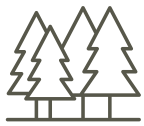
MODIFIED PROCESS

KLAASWOOD®
Modified Process

STEP 1

FOREST

High-quality Southern Yellow Pine and Red Oak sourced locally in the U.S.



STEP 2

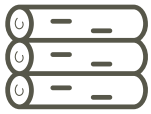
SAW MILL

Selected for premium grade and milled to precise specifications

STEP 3

LUMBER

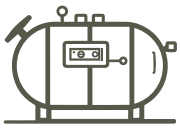
Spaced and prepped to maximize airflow



STEP 4

HYDROLYSIS

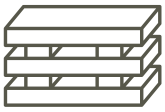
2nd Generation Hydrolysis Technology modification for 8 hours at low temperature and high pressure



STEP 5

REMANUFACTURE

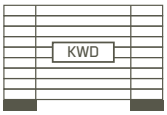
Remanufactured to exacting standards for cladding and decking



STEP 6

PACKAGING

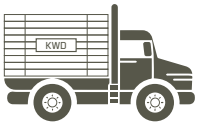
Branded and packaged for protection during shipping and while in inventory



STEP 7

DISTRIBUTION

Shipped on time in full to distribution partners across North America



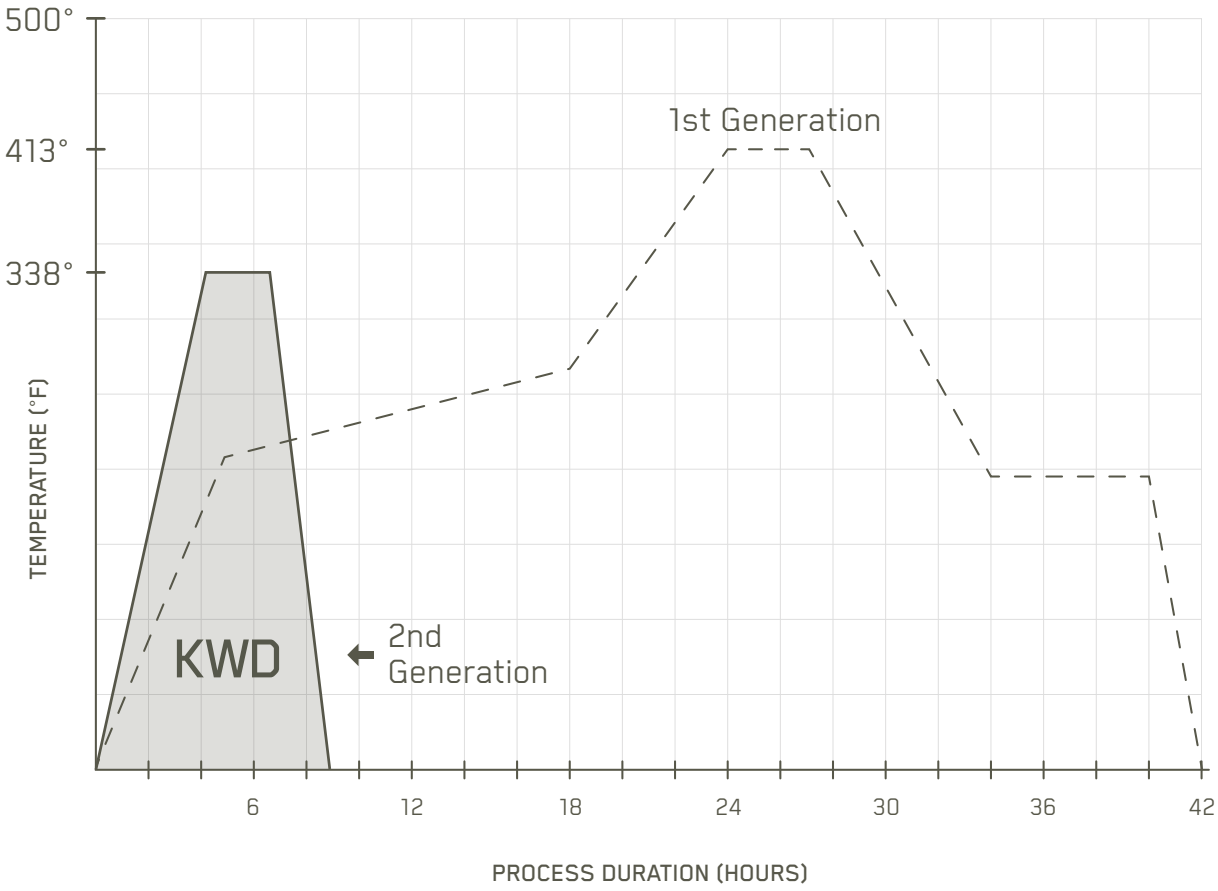
KLAASWOOD®

MODIFICATION PROCESS

THE KLAASWOOD® DIFFERENCE

1st Generation – "open system" (Pyrolysis) VS 2nd Generation – "closed system" (Hydrolysis)

MODIFICATION PROCESS



KLAASWOOD® uses an innovative, 2nd generation hydrolysis technology that is changing the landscape of modified wood.

KLAASWOOD® uses a "closed system" for modification to improve durability and eliminate common concerns (water intrusion, mold, rot, decay) in wood.

PROCESS

1. Hydrolysis Technology
2. Pressure is added 174 psi for 30 minutes
3. Ramp up temperature for 2 hours 170 degrees
4. Hold pressure and 338 degree temperature for 2 hours
5. Ramp down temperature for 3 hours
6. Ramp down pressure for 30 minutes
7. Total modification time 8 hours

BENEFITS OF 2ND GENERATION

1. Lower stress on wood fiber
2. Lower energy consumption
3. Zero water consumption
4. Lower Co2 output
5. Faster modification
6. Higher moisture resistance
7. Higher Class 1 durability rating
8. Higher strength
9. Lower cost

KLAASWOOD®

MODIFIED WOOD

MODIFIED WOOD TECHNOLOGY

KLAASWOOD® = Gen 2 (low heat, high pressure)
ThermoWood Association = Gen 1 (high heat, steam)

Data	Unit of Measure	KWD	TWA	Notes
Process Time	Hours	8	36	Less time = less brittle, less strength loss & quicker lead times
Process Temp	Fahrenheit	338	413	Higher temperatures means increased degradation, strength loss, brittleness and darker color
Process Pressure	PSI	174	Atmospheric	
CO2 Process Emissions	Kg/CO2/MBF	104-130	260-520	Fuel source: wood pellets without re-forestation: 367 g/kWh
Water Consumption	Gal/MBF	0	125	Water is increasingly a scarce resource and partly non-renewable depending on source
Moisture	Percentage (%)	<=6	7	@ standard conditions (68°F, 65%RH)
Durability	Class Rating	1 - "Very Durable"	2 - "Durable"	

KLAASWOOD®

DURABILITY PERFORMANCE

WTT THERMOTREAT 2.0

Documentation of Durability Performance

In this document we review and document WTT durability performance. It shows how durability performance of WTT thermo wood is clearly superior when compared to other, older systems such as ThermoWood. The documentation is also more rigid, detailed and complete.

1. Durability Laboratory Test

	Durability Class (EN 350)		Test Procedure*	
	WTT	ThermoWood	WTT	ThermoWood
Softwood	1 Very Durable	2** Durable	EN 73 + EN 113 EN 84 + EN 113	EN 113
Hardwood	1 Very Durable	1 Very Durable	EN 73 + EN 113 EN 84 + EN 113	EN 113

* EN 113 is the durability test procedure, where the wood is subjected to fungi/rot attack

EN 73 + 84 are ageing tests, performed before the EN 113 durability test. These subject the wood to physical stress by water/leaching (EN84) and evaporation (EN73). The purpose of these two tests is to simulate the real environment outside the laboratory.

** for performance and test procedures for ThermoWood, please consult their website at: **https://www.thermowood.fi/1**

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

KILN DRIED SOUTHERN YELLOW PINE (Primarily Longleaf Pine)

PRIME & BETTER GRADE SPECIFICATION 4/4 AND 5/4

MAX WANE: Depth; ½ edge – width; 1" wide across the face - length; 2' long.

KNOTS: Must be well spaced. No loose knots allowed. No edge knots.

- 1X4 and 1X6 - 2 knots max - ¾" on face & 1" backside
- 1X8, 1X10 and 1X12 – 2 knots max - 1" on face & 1-1/2" backside

PITCH POCKETS: Same as knots.

HOLES: None allowed.

BLUE STAIN: None allowed.

MOLD: None allowed.

SHAKES: None allowed.

MOISTURE CONTENT: 15% and below.

MODIFIED WOOD

KILN DRIED NORTHERN RED OAK

MODIFICATION GRADE 4/4 AND 5/4

- S2S Hit & Miss
- Parallel-sawn to full width after KD
- 6' and longer as develops

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

MODIFIED WOOD

BENEFITS OF KWD PINE

Southern Yellow Pine is a group of 10 different species, of which Shortleaf Pine, Slash Pine, Longleaf Pine and Loblolly Pine are the commercially most important. For KLAASWOOD® we use primarily prime grade Longleaf Pine (Pinus Palustris), replanted (plantation) growth. Longleaf Pine is considered the species of highest quality with the highest density and mechanical strength in the grouping. It modifies well and has a beautiful grain.

Strength and Durability: KWD Pine is known for its exceptional strength and durability. It has a high density and strong wood fibers, making it suitable for structural applications in construction.

Load-Bearing Capacity: KWD Pine strength-to-weight ratio and load-bearing capacity make it an excellent choice for structural components like beams, joists, and columns in both residential and commercial buildings.

Versatility: KWD Pine can be used for a wide range of applications, including framing, decking, siding, roofing, flooring, and more. Its versatility makes it a popular choice for various construction and woodworking projects.

Availability: KWD Pine is abundant in the southeastern United States, making it readily available and more affordable compared to some other types of wood.

Easy to Work With: KWD Pine is relatively easy to work with using both hand and power tools. It can be cut, drilled, and fastened without excessive difficulty.

Appearance: KWD Pine has a distinct appearance with a range of color variations, from light yellow to reddish-brown. It can be finished with stains or coatings to enhance its natural beauty.

Stability: KWD Pine tends to have relatively low shrinkage and minimal warping or twisting, which contributes to its stability in various applications.

Environmental Considerations: If sourced sustainably, using KWD Pine can be environmentally friendly, especially if it comes from responsibly managed forests and plantations.

Affordability: Due to its availability and ease of cultivation, KWD Pine tends to be more affordable than some other types of wood, making it an economical choice for construction projects.

It's important to note that the specific benefits of KWD Pine can vary depending on the grade of wood, its treatment, and its intended use. Proper maintenance and care are also essential to ensure the longevity and performance of any wood product, including KWD Pine.

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

MODIFIED WOOD

BENEFITS OF KWD OAK

Red Oak comprises 10 different species, such as Scarlet Oak, Southern Red Oak, and Black Oak. For KLAASWOOD®, we use the Northern Red Oak (Quercus rubra), which is the most popular hardwood in the US and of superior quality in the Red Oak grouping. Northern Red Oak is grown in the Northeastern US and Eastern Canada.

Durability: KWD Oak is a hardwood known for its strength and durability. KWD Oak can withstand harsh weather conditions, resist rot, and have a longer lifespan compared to other types of wood.

Aesthetic Appeal: KWD Oak has a natural, attractive grain pattern that adds a timeless and elegant look to outdoor spaces. It can enhance the overall aesthetic of your garden or patio.

Stability: KWD Oak wood tends to be more stable and less prone to warping or twisting compared to some other types of wood. This stability is crucial for maintaining a level and sturdy surface.

Low Maintenance: KWD Oak requires relatively low maintenance. Periodic cleaning and sealing can help preserve its appearance and protect it from the elements.

Versatility: KWD Oak is a versatile material that can be easily shaped and cut. This allows for various design options, and it can be stained or finished to achieve the desired color and style.

Environmental Sustainability: Some KWD Oak lumber is sourced from responsibly managed forests, making it a more sustainable choice. Look for certification labels, such as FSC (Forest Stewardship Council), to ensure the wood comes from responsibly harvested forests.

It's important to note that while KWD Oak has these benefits, it may also come with a higher initial cost compared to some other building materials. However, many homeowners find the long-term benefits and aesthetic appeal justify the investment.

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

COLOR COATINGS

KLAASWOOD® Color Coatings

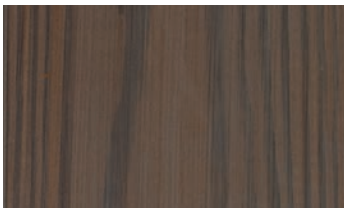
KLAASWOOD®, Modified Wood, can be enjoyed naturally or by applying an exterior finish.

If choosing to enjoy the natural appearance, KLAASWOOD® will fade naturally as well. Depending on the KLAASWOOD® surface exposure to the UV rays, the fade expectancy will vary. Over time, KLAASWOOD® will fade to a silver grey.

If choosing to apply a paint or stain to change the color appearance or to provide additional UV protection to maintain the natural color of KLAASWOOD®, be aware the modification process may slightly affect the wood's ability to absorb finishes and it's important to follow the manufacturer's guidelines or consult with a professional to ensure proper applications. Be sure that the surface is clean and dry before applying any finishes.

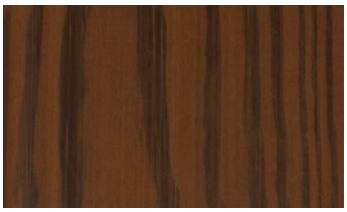
KLAASWOOD® offers 3 options for factory applied coated colors: Grey, Dark Brown, & Golden.

KLAASWOOD® utilizes PPG Exterior ProLuxe SRD Semi-Transparent Exterior Matte Tint for all factory applied coated products.



GREY

DARK BROWN



GOLDEN

Refer to PPG website for information regarding coatings: www.ppg.com

KLAASWOOD® does not recommend staining/painting Fire Retardant (FR) products.

Quart size color matched stain is available and must be ordered with each purchase of KLAASWOOD® Pre-Finished material. Utilize color matched stain during product installation on edge cuts, nail penetrations or any scuffed areas.

Care & Maintenance

Maintaining a clean surface for your wood is crucial. Stains can develop on the surface and can be attributed to various factors such as dirt, debris, pollen, and microscopic elements settling on the material. While this does not affect the wood's integrity, specific environments, such as shaded decks or siding, offer optimal conditions for mold and fungus growth. This may necessitate more frequent cleaning of the deck surface and additional preventive measures to protect the surface of the wood. Stains are removable through light pressure washing and the application of a standard cleaning agent.

KLAASWOOD®

COLOR COATINGS

PPG Manufacturer of Exterior Industrial Coatings

Reference Manufacturer Website: www.ppg.com

ProLuxe SRD Semi-Transparent Exterior Matte Tint

Penetrating semi-transparent wood stain with UV absorbers for a boost of UV protection for less frequent maintenance.

PPG Colors:

- KWD Golden Coated = PPG Natural Tone
- KWD Grey Coated = PPG Taupe
- KWD Dark Brown Coated = PPG Chestnut Brown

KLAASWOOD® Application: Sprayed in Factory

Features:

- Semi-Transparent Matte Wood Stain Finish
- Strong water repellency and UV protection
- Tintable to a wide range of wood stain color options

Certifications:

- OTC
- LADCO
- US National AIM
- MPI
- SCAQMD
- CARB 2000 SCM
- Canada National AIM

Lifespan & Protection:

A semi-transparent stain on a deck typically lasts 2-3 years in full sun, longer if not constantly exposed. On siding, it lasts much longer, especially if shielded from weather. The lifespan depends on exposure, weather, foot traffic, and UV protection, which increases with pigment. Clear stains offer the least protection, followed by transparent and semi-transparent. Semi-solids and solids provide the most protection but show less wood grain.

PPG Product Safety Data Sheet

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

MODIFIED WOOD COLLECTION

KLAASWOOD®
SIDING & TRIM

KWD MODIFIED PINE

- Southern Yellow Pine
- Prime Grade C & Better
- Durability Class 1
- Available Siding Profile: Nickel Gap (T&G) Profile
- Available Trim Profile: S4S
- Siding Size: 4/4 x 4, 4/4 x 6, 4/4 x 8
- Trim Size: 5/4 x 4, 5/4 x 6, 5/4 x 8
- Available Texture: Smooth or Combed
- Coating: Natural Finish will weather naturally
- Available Pre-Finished Colors: Golden, Grey & Dark Brown
- Fire Rating: Siding 4/4 achieves Class C and Trim 5/4 achieves Class B. Class A is available with FR-Treatment.

KWD MODIFIED OAK

- Northern Red Oak
- FAS Grade
- Durability Class 1
- Available Siding Profile: Nickel Gap (T&G) Profile
- Available Trim Profile: S4S
- Siding Size: 4/4 x 6
- Trim Size: 5/4 x 4, 5/4 x 6, 5/4 x 8
- Available Texture: Smooth
- Coating: Natural Finish will weather naturally
- Fire Rating: Siding 4/4 achieves Class C and Trim 5/4 achieves Class B

SCAN THE QR CODE

Scan to access the full list of KLAASWOOD's installation guides for decking, siding, and trim.


Pine | Smooth | Grey


Pine | Combed | Dark Brown


Pine | Combed | Natural


Pine | Smooth | Golden


Pine | Smooth | Natural


Red Oak | Smooth | Natural

MODIFIED WOOD COLLECTION

KLAASWOOD®
DECKING

KWD MODIFIED PINE

- Southern Yellow Pine
- Prime Grade C & Better
- Durability Class 1
- Available Profile: Double Groove or S4S
- Size: 5/4 x 6
- Available Texture: Smooth
- Coating: Natural Finish will weather naturally
- Fire Rating: Achieves Class B. Class A is available with FR-treatment

Pine | Smooth | Natural

KWD MODIFIED OAK

- Northern Red Oak
- FAS Grade
- Durability Class 1
- Available Profile: Double Groove or S4S
- Size: 5/4 x 6
- Available Texture: Smooth
- Coating: Natural Finish will weather naturally
- Fire Rating: Achieves Class B

Red Oak | Smooth | Natural

SCAN THE QR CODE

Scan to access the full list of KLAASWOOD's installation guides for decking, siding, and trim.

KLAASWOOD®

WARRANTY

MODIFIED WOOD

20-YEAR LIMITED WARRANTY

IMPORTANT: This is your warranty certificate. Attach your invoice and proof of warranty.

WARRANTY KLAASWOOD® (KWD) hereby warrants that its modified wood products are manufactured in accordance with industry standards and will, as manufactured, not suffer from rot or fungal decay for a period of Twenty (20) years from the original date of purchase as long as the products have been installed and maintained as provided in the KLAASWOOD® Installation and Maintenance Guide.

This limited warranty extends to the original purchaser of the products and to the owner of a structure on which the products were originally installed on the exterior of the structure (a "Qualified Owner"). This warranty is transferable and is limited to structures located within the continental United States, Alaska, Hawaii and Canada.

EXCLUSIONS Any defect or damage to products due to rot or fungal decay resulting in whole or in part from any of the following conditions is NOT covered by this limited warranty:

- Products placed in or having contact with fresh or saltwater.
- Products removed from their original installation and re-used at a new location.
- Poor or improper maintenance of products such as allowing the accumulation of dirt and other organic matter to occur, or by a material change in the installation environment where the products are unnecessarily subjected to ground contact conditions, such as those created by water or soil entrapment.
- Use for any purpose for which the products were not designed.
- Failure to meet building code requirements or comply with the KLAASWOOD® Installation and Maintenance Instructions.
- Excessive moisture exposure due to the lack of proper protection of the products or inadequate insulation or ventilation.
- Abnormal use conditions, such as improper storage, handling, transportation, use, maintenance or installation; impact wrth other objects; earthquake, flood, fire, acts of God or nature; or any other cause beyond KLAASWOOD®'s control including weather surface checks and variations or changes in the color of the products.
- Exposure or handling that is not consistent with good practices in the construction industry, including misuse and abuse and contact with or exposure to abnormal levels of moisture or insects, mold, mildew, fungi, algae, moss, bacterial growth, decay, rot or comparable conditions.

CONDITIONS AND EXCLUSIVE REMEDIES A Qualified Owner must give KLAASWOOD® written notice no later than sixty (60) days after discovery of any defect for which a warranty claim may be asserted. Such Qualified Owner must give KLAASWOOD® an additional thirty (30) days thereafter to inspect the products prior to any alteration or repair being made. If KLAASWOOD®'s inspection confirms that a manufacturing defect has occurred which is covered by this warranty, KLAASWOOD® will provide such Qualified Owner with a sufficient quantity of replacement products. This warranty is limited to the delivery of such replacement products to such Qualified Owner free of charge, and does not include costs of removal and reinstallation of the products or any other cost. Excluding the express warranty granted in this document, KLAASWOOD®'s products are sold "as is" and "with all faults". The foregoing remedy are KLAASWOOD®'s only obligation relating to this limited warranty for its products and the sole and exclusive remedy of a Qualified Owner for any breach of this limited warranty.

DISCLAIMER OF WARRANTIES This limited warranty is the sole warranty given by KLAASWOOD® with respect to its products. KLAASWOOD® disclaims all other warranties, express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. This limited warranty supersedes all prior or contemporaneous oral or written representations concerning the products. No KLAASWOOD® employee or any other person is authorized to modify this limited warranty or make any warranty in addition to the limited warranty set forth in this document. All questions concerning the meaning or applicability of this limited warranty are to be decided under the law of the State of Montana without reference to its choice-of-law rules.

LIMITATION OF REMEDIES AND DAMAGES UNDER NO CIRCUMSTANCES WILL KLAASWOOD® BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNTITIVE DAMAGES, WHETHER ARISING OUT OF OR IN ANY WAY RELATED TO A CLAIM FOR BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR ANY OTHER LEGAL THEORY, INCLUDING, BUT ARE NOT LIMITED TO, LOSS OF PROFITS, DAMAGE TO THE STRUCTURE ON WHICH THE PRODUCTS ARE INSTALLED, DAMAGE TO OTHER PROPERTY, AND LOSS OF USE OF THE PRODUCTS OR OTHER PROPERTY. ANY ACTION OR SUIT RELATING TO THIS LIMITED WARRANTY MUST BE COMMENCED WITHIN 90 DAYS AFTER THE CAUSE OF ACTION ACCRUES.

REGISTRATION For the foregoing limited warranty to be applicable and enforceable, please register your warranty within ninety (90) days of product purchase. For registration, please submit information on proof of purchase, full name, phone number, address and email address. For claims, please submit information on the number and size of pieces to be replaced, a clear photo of the item, proof of purchase, dated receipt, full name, phone number, address and email address. To transfer this limited warranty, please provide written notice to us within thirty (30) days after the date of transfer of ownership of the structure on which the products were originally installed. For registration, transfer or to make a warranty claim, please send your information to KLAASWOOD® (Peter@klaaswood.com), or the retailer/distributor where the products were purchased.

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

Technical Data

KLAASWOOD®

PRODUCT DATA SHEET

KLAASWOOD®
Thermo Pine Siding

DATA TYPE	PERFORMANCE	STANDARD/CODE REFERENCE	REMARKS
Use Class	UC3A	AWPA U1-22	Outdoor, above ground applications
Durability Class	DC1	EN 73+113 lab test	Highest rating, expected lifetime > 25 years
		EN 83+113 lab test	
		CEN/TS 12037	Accelerated field testing Borneo
Termite resistance	No resistance	EN 117	
EMC @ 65% RH, 70o F	5.9%	EN 13183-1	
Fire rating	Class C	ASTM E84	
Density	596 kg/m3	EN 317	
Fmax	6,635 N	EN 408+A1: 2012	
Modulus of Rupture	60.5 Mpa	EN 408+A1: 2012	
Modulus of Elasticity	12,434 Mpa	EN 408+A1: 2012	
Dimensional stability, longitudinal	0.0 (0.1) %	EN 317-3	Water immersion 24 hrs.
Dimensional stability, radial	0.8 (0.3) %	EN 317-3	
Dimensional stability, tangential	1.5 (0.4) %	EN 317-3	
Janka Hardness, longitudinal	5,345 N	ASTM D143-94	
Janka Hardness, radial	3,463 N		
Janka Hardness, tangential	3,146 N		
Screw withdrawal capacity	28,3 N/mm2	EN 13446	
Thermal conductivity		ISO 13787+EN 12667	In progress
Volatile Organic Compounds TWOC		KET 3300495	In progress

Questions?

Please visit **www.klaaswood.com** for more information.

KWD

KLAASWOOD®

PRODUCT DATA SHEET

KLAASWOOD®
Thermo Pine Decking

DATA TYPE	PERFORMANCE	STANDARD/CODE REFERENCE	REMARKS
Use Class	UC3A	AWPA U1-22	Outdoor, above ground applications
Durability Class	DC1	EN 73+113 lab test	Highest rating, expected lifetime > 25 years
		EN 83+113 lab test	
		CEN/TS 12037	Accelerated field testing Borneo
Termite resistance	No resistance	EN 117	
EMC @ 65% RH, 70o F	5.9%	EN 13183-1	
Fire rating	Class B	ASTM E84	
Density	596 kg/m3	EN 317	
Fmax	6,635 N	EN 408+A1: 2012	
Modulus of Rupture	60.5 Mpa	EN 408+A1: 2012	
Modulus of Elasticity	12,434 Mpa	EN 408+A1: 2012	
Dimensional stability, longitudinal	0.0 (0.1) %	EN 317-3	Water immersion 24 hrs.
Dimensional stability, radial	0.8 (0.3) %	EN 317-3	
Dimensional stability, tangential	1.5 (0.4) %	EN 317-3	
Janka Hardness, longitudinal	5,345 N	ASTM D143-94	
Janka Hardness, radial	3,463 N		
Janka Hardness, tangential	3,146 N		
Screw withdrawal capacity	28,3 N/mm2	EN 13446	
Thermal conductivity		ISO 13787+EN 12667	In progress
Volatile Organic Compounds TWOC		KET 3300495	In progress

Questions?

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PRODUCT DATA SHEET

KLAASWOOD®
Thermo Oak Siding

DATA TYPE	PERFORMANCE	STANDARD/CODE REFERENCE	REMARKS
Use Class	UC3A	AWPA U1-22	Outdoor, above ground applications
Durability Class	DC1	EN 73+113 lab test	Highest rating, expected lifetime > 25 years
		EN 83+113 lab test	
		CEN/TS 12037	Accelerated field testing Borneo
Termite resistance	No resistance	EN 117	
EMC @ 65% RH, 70o F	5.4%	EN 13183-1	
Fire rating	Class C	ASTM E84	
Density	530 kg/m3	EN 317	
Fmax	4,735 N	EN 408+A1: 2012	
Modulus of Rupture	43.5 Mpa	EN 408+A1: 2012	
Modulus of Elasticity	11,543 Mpa	EN 408+A1: 2012	
Dimensional stability, longitudinal	0.1 (0,1) %	EN 317-3	Water immersion 24 hrs.
Dimensional stability, radial	0.3 (0.1) %	EN 317-3	
Dimensional stability, tangential	0.7 (0.1) %	EN 317-3	
Janka Hardness, longitudinal	4,570 N	ASTM D143-94	
Janka Hardness, radial	3,062 N		
Janka Hardness, tangential	2,773 N		
Screw withdrawal capacity	20.33 N/mm2	EN 13446	
Thermal conductivity		ISO 13787+EN 12667	In progress
Volatile Organic Compounds TWOC		KET 3300495	In progress

Questions?

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PRODUCT DATA SHEET

KLAASWOOD®
Thermo Oak Decking

DATA TYPE	PERFORMANCE	STANDARD/CODE REFERENCE	REMARKS
Use Class	UC3A	AWPA U1-22	Outdoor, above ground applications
Durability Class	DC1	EN 73+113 lab test	Highest rating, expected lifetime > 25 years
		EN 83+113 lab test	
		CEN/TS 12037	Accelerated field testing Borneo
Termite resistance	No resistance	EN 117	
EMC @ 65% RH, 70o F	5.4%	EN 13183-1	
Fire rating	Class B	ASTM E84	
Density	530 kg/m3	EN 317	
Fmax	4,735 N	EN 408+A1: 2012	
Modulus of Rupture	43.5 Mpa	EN 408+A1: 2012	
Modulus of Elasticity	11,543 Mpa	EN 408+A1: 2012	
Dimensional stability, longitudinal	0.1 (0,1) %	EN 317-3	Water immersion 24 hrs.
Dimensional stability, radial	0.3 (0.1) %	EN 317-3	
Dimensional stability, tangential	0.7 (0.1) %	EN 317-3	
Janka Hardness, longitudinal	4,570 N	ASTM D143-94	
Janka Hardness, radial	3,062 N		
Janka Hardness, tangential	2,773 N		
Screw withdrawal capacity	20.33 N/mm2	EN 13446	
Thermal conductivity		ISO 13787+EN 12667	In progress
Volatile Organic Compounds TWOC		KET 3300495	In progress

Questions?

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KLAASWOOD®

PRODUCT DATA SHEET

KLAASWOOD®
Thermo Pine Firetreated Siding

DATA TYPE	PERFORMANCE	STANDARD/CODE REFERENCE	REMARKS
Use Class	UC3A	AWPA U1-22	Outdoor, above ground applications
Durability Class	DC1	EN 73+113 lab test	Highest rating, expected lifetime > 25 years
		EN 83+113 lab test	
		CEN/TS 12037	Accelerated field testing Borneo
Termite resistance		EN 117	TBD
EMC @ 65% RH, 70o F	5.9%	EN 13183-1	
Fire rating	Claas A	ASTM E84	WUI listed
Density	596 kg/m3	EN 317	
Fmax	6,635 N	EN 408+A1: 2012	
Modulus of Rupture	60.5 Mpa	EN 408+A1: 2012	
Modulus of Elasticity	12,434 Mpa	EN 408+A1: 2012	
Dimensional stability, longitudinal	0.0 (0.1) %	EN 317-3	Water immersion 24 hrs.
Dimensional stability, radial	0.8 (0.3) %	EN 317-3	
Dimensional stability, tangential	1.5 (0.4) %	EN 317-3	
Janka Hardness, longitudinal	5,345 N	ASTM D143-94	
Janka Hardness, radial	3,463 N		
Janka Hardness, tangential	3,146 N		
Screw withdrawal capacity	28,3 N/mm2	EN 13446	

Questions?

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KLAASWOOD®

PRODUCT DATA SHEET

KLAASWOOD®
Thermo Pine Firetreated Decking

DATA TYPE	PERFORMANCE	STANDARD/CODE REFERENCE	REMARKS
Use Class	UC3A	AWPA U1-22	Outdoor, above ground applications
Durability Class	DC1	EN 73+113 lab test	Highest rating, expected lifetime > 25 years
		EN 83+113 lab test	
		CEN/TS 12037	Accelerated field testing Borneo
Termite resistance		EN 117	TBD
EMC @ 65% RH, 70o F	5.9%	EN 13183-1	
Fire rating	Claas A	ASTM E84	WUI listed
Density	596 kg/m3	EN 317	
Fmax	6,635 N	EN 408+A1: 2012	
Modulus of Rupture	60.5 Mpa	EN 408+A1: 2012	
Modulus of Elasticity	12,434 Mpa	EN 408+A1: 2012	
Dimensional stability, longitudinal	0.0 (0.1) %	EN 317-3	Water immersion 24 hrs.
Dimensional stability, radial	0.8 (0.3) %	EN 317-3	
Dimensional stability, tangential	1.5 (0.4) %	EN 317-3	
Janka Hardness, longitudinal	5,345 N	ASTM D143-94	
Janka Hardness, radial	3,463 N		
Janka Hardness, tangential	3,146 N		
Screw withdrawal capacity	28,3 N/mm2	EN 13446	

Questions?

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KLAASWOOD®

Product Information

SOUTHERN YELLOW PINE SIDING

Manufacturer	Sku #	Species	Profile	Texture	Color	Nominal Sizing
KWD	151004	Pine	Nickel Gap	Smooth	Natural	4/4 x 4
KWD	151014	Pine	Nickel Gap	Smooth	Grey	4/4 x 4
KWD	151024	Pine	Nickel Gap	Smooth	Dark Brown	4/4 x 4
KWD	151034	Pine	Nickel Gap	Smooth	Golden	4/4 x 4
KWD	151044	Pine	Nickel Gap	Smooth	Fire-Retardant	4/4 x 4
KWD	151006	Pine	Nickel Gap	Smooth	Natural	4/4 x 6
KWD	151016	Pine	Nickel Gap	Smooth	Grey	4/4 x 6
KWD	151026	Pine	Nickel Gap	Smooth	Dark Brown	4/4 x 6
KWD	151036	Pine	Nickel Gap	Smooth	Golden	4/4 x 6
KWD	151046	Pine	Nickel Gap	Smooth	Fire-Retardant	4/4 x 6
KWD	151008	Pine	Nickel Gap	Smooth	Natural	4/4 x 8
KWD	151018	Pine	Nickel Gap	Smooth	Grey	4/4 x 8
KWD	151028	Pine	Nickel Gap	Smooth	Dark Brown	4/4 x 8
KWD	151038	Pine	Nickel Gap	Smooth	Golden	4/4 x 8
KWD	151048	Pine	Nickel Gap	Smooth	Fire-Retardant	4/4 x 8
KWD	151904	Pine	Nickel Gap	Combed	Natural	4/4 x 4
KWD	151914	Pine	Nickel Gap	Combed	Grey	4/4 x 4
KWD	151924	Pine	Nickel Gap	Combed	Dark Brown	4/4 x 4
KWD	151934	Pine	Nickel Gap	Combed	Golden	4/4 x 4
KWD	151944	Pine	Nickel Gap	Combed	Fire-Retardant	4/4 x 4
KWD	151906	Pine	Nickel Gap	Combed	Natural	4/4 x 6
KWD	151916	Pine	Nickel Gap	Combed	Grey	4/4 x 6
KWD	151926	Pine	Nickel Gap	Combed	Dark Brown	4/4 x 6
KWD	151936	Pine	Nickel Gap	Combed	Golden	4/4 x 6
KWD	151946	Pine	Nickel Gap	Combed	Fire-Retardant	4/4 x 6
KWD	151908	Pine	Nickel Gap	Combed	Natural	4/4 x 8
KWD	151918	Pine	Nickel Gap	Combed	Grey	4/4 x 8
KWD	151928	Pine	Nickel Gap	Combed	Dark Brown	4/4 x 8
KWD	151938	Pine	Nickel Gap	Combed	Golden	4/4 x 8
KWD	151948	Pine	Nickel Gap	Combed	Fire-Retardant	4/4 x 8

RED OAK SIDING

Manufacturer	Sku #	Species	Profile	Texture	Color	Nominal Sizing
KWD	161004	Red Oak	Nickel Gap	Smooth	Natural	4/4 x 4
KWD	161006	Red Oak	Nickel Gap	Smooth	Natural	4/4 x 6
KWD	161008	Red Oak	Nickel Gap	Smooth	Natural	4/4 x 8

SOUTHERN YELLOW PINE TRIM

Manufacturer	Sku #	Species	Profile	Texture	Color	Nominal Sizing
KWD	252004	Pine	S4S	Smooth	Natural	5/4 x 4
KWD	252014	Pine	S4S	Smooth	Grey	5/4 x 4
KWD	252024	Pine	S4S	Smooth	Dark Brown	5/4 x 4
KWD	252034	Pine	S4S	Smooth	Golden	5/4 x 4
KWD	252044	Pine	S4S	Smooth	Fire-Retardant	5/4 x 4
KWD	252006	Pine	S4S	Smooth	Natural	5/4 x 6
KWD	252016	Pine	S4S	Smooth	Grey	5/4 x 6
KWD	252026	Pine	S4S	Smooth	Dark Brown	5/4 x 6
KWD	252036	Pine	S4S	Smooth	Golden	5/4 x 6
KWD	252046	Pine	S4S	Smooth	Fire-Retardant	5/4 x 6
KWD	252008	Pine	S4S	Smooth	Natural	5/4 x 8
KWD	252018	Pine	S4S	Smooth	Grey	5/4 x 8
KWD	252028	Pine	S4S	Smooth	Dark Brown	5/4 x 8
KWD	252038	Pine	S4S	Smooth	Golden	5/4 x 8
KWD	252048	Pine	S4S	Smooth	Fire-Retardant	5/4 x 8
KWD	252904	Pine	S4S	Combed	Natural	5/4 x 4
KWD	252914	Pine	S4S	Combed	Grey	5/4 x 4
KWD	252924	Pine	S4S	Combed	Dark Brown	5/4 x 4
KWD	252934	Pine	S4S	Combed	Golden	5/4 x 4
KWD	252944	Pine	S4S	Combed	Fire-Retardant	5/4 x 4
KWD	252906	Pine	S4S	Combed	Natural	5/4 x 6
KWD	252916	Pine	S4S	Combed	Grey	5/4 x 6
KWD	252926	Pine	S4S	Combed	Dark Brown	5/4 x 6
KWD	252936	Pine	S4S	Combed	Golden	5/4 x 6
KWD	252946	Pine	S4S	Combed	Fire-Retardant	5/4 x 6
KWD	252908	Pine	S4S	Combed	Natural	5/4 x 8
KWD	252918	Pine	S4S	Combed	Grey	5/4 x 8
KWD	252928	Pine	S4S	Combed	Dark Brown	5/4 x 8
KWD	252938	Pine	S4S	Combed	Golden	5/4 x 8
KWD	252948	Pine	S4S	Combed	Fire-Retardant	5/4 x 8

RED OAK TRIM

Manufacturer	Sku #	Species	Profile	Texture	Color	Nominal Sizing
KWD	262004	Red Oak	S4S	Smooth	Natural	5/4 x 4
KWD	262006	Red Oak	S4S	Smooth	Natural	5/4 x 6
KWD	262008	Red Oak	S4S	Smooth	Natural	5/4 x 8

SOUTHERN YELLOW PINE DECKING

Manufacturer	Sku #	Species	Profile	Texture	Color	Nominal Sizing
KWD	252006	Pine	S4S	Smooth	Natural	5/4 x 6
KWD	252046	Pine	S4S	Smooth	Fire-Retardant	5/4 x 6
KWD	253006	Pine	Double-Groove	Smooth	Natural	5/4 x 6
KWD	253046	Pine	Double-Groove	Smooth	Fire-Retardant	5/4 x 6

RED OAK DECKING

Manufacturer	Sku #	Species	Profile	Texture	Color	Nominal Sizing
KWD	262006	Red Oak	S4S	Smooth	Natural	5/4 x 6
KWD	263006	Red Oak	Double-Groove	Smooth	Natural	5/4 x 6

KLAASWOOD®

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Questions?

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