



# EXOCLAD QUICKCLIP

“The ONLY Rainscreen Clip System that  
Allows Wood to Expand and Contract Naturally.”

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# Background: The Basics

What is Rainscreen Siding? Why Use it?

Why Use Hardwood Siding?

More Than Environmentally Friendly

Why Use a Siding Clip System?

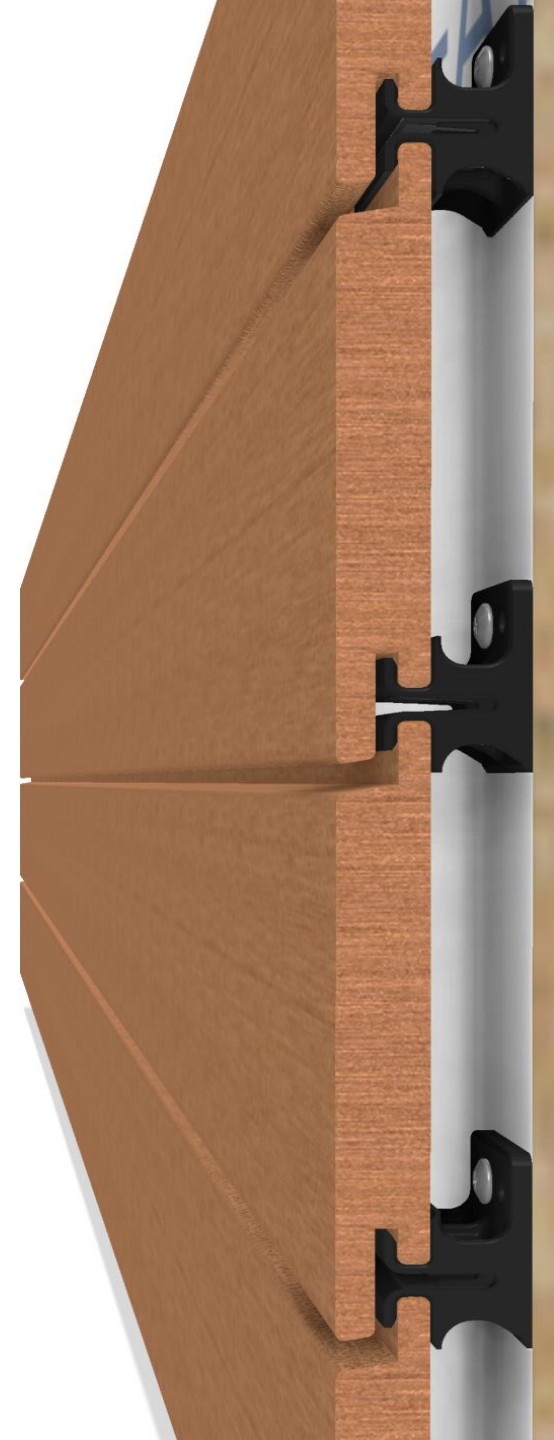
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Failed Siding Examples??

# What is Rainscreen Siding? Why Use it?

- Rainscreen siding is a cladding layer for the exterior of homes and businesses that includes an airgap
- Rainscreen siding system's air gap sits between the siding material and the structure and is typically in the range of 3/4"
- This full system provides additional **wind, rain and other weather protection** to your exterior walls
- Improves the **energy efficiency** of your home, especially when additional gap is present



# More Than Environmentally Friendly

- **Durability:** Especially in comparison to softwoods, hardwood is naturally durable and resistant to rot.
- **Aesthetically Pleasing:** Unbeatably beautiful with the ability to fit any personal style



# Why Use Hardwood Siding?

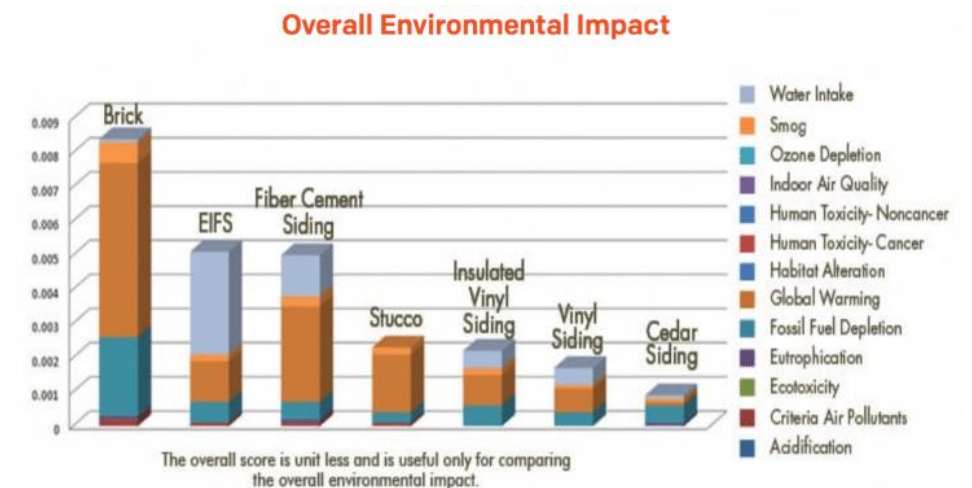
- **Sustainability:** Hardwood is naturally abundant and harvested responsibly, allowing for more growth than removal
- **Biodegradable:** Environmentally friendly, unlike concrete or PVC and composite decking
- **NO Microplastics:** Usage of microplastics is nonexistent through production and lifecycle
- **Energy Saver:** Less energy is used to produce hardwoods in comparison to aluminum, brick, concrete and steel
- **Sequesters Carbon:** Aluminum, brick, concrete and steel produce and release carbon, whereas hardwood sequesters it



# Why Are These Poor Choices?

- Concrete and cement
  - The cement industry is one of the top producers of CO2
  - Concrete dust is dangerous to your health and contributes to air pollution
- HardiePlank and similar products
  - Combination of wood fiber and cement
  - Wood fiber makes it susceptible to rot
  - Cement is environmentally damaging
  - Not energy efficient, increases thermal bridging
  - Usually lasts 30-50 years
- Brick
  - Usually lasts 80-100 years
  - Okay insulator, but not great not great
- Aluminum
  - Usually lasts 30-40 years
  - Not energy efficient, increases thermal bridging
- Stucco
  - Usually lasts 50-80 years
  - Not energy efficient, increases thermal bridging
- Vinyl
  - Usually lasts 20-30 years
  - Okay insulator, but not great
- Softwoods
  - Not bad, but it will likely need to be replaced after 20 years
  - Best insulator, before hardwood or insulated siding itself

SIDING PRODUCTS	R-VALUE
Stone	.01
Stucco	.10
Brick	.11
Fiber Cement	.15
Vinyl Siding	.60
Wood	.81
<b>Insulated Siding</b>	<b>2.0 - 3.5</b>



# Why Use a Siding Clip System?

- **Time:** No need for furring strips – no need for extra cutting and installation
- **Costs:** Lower labor costs result in lower overall project costs
- **Sleek:** Creates a smooth and consistent visual appearance
- No necessary drilling through your façade – no moisture pockets
- In some cases, they create an additional gap between the building walls and the rainscreen to reduce thermal bridging



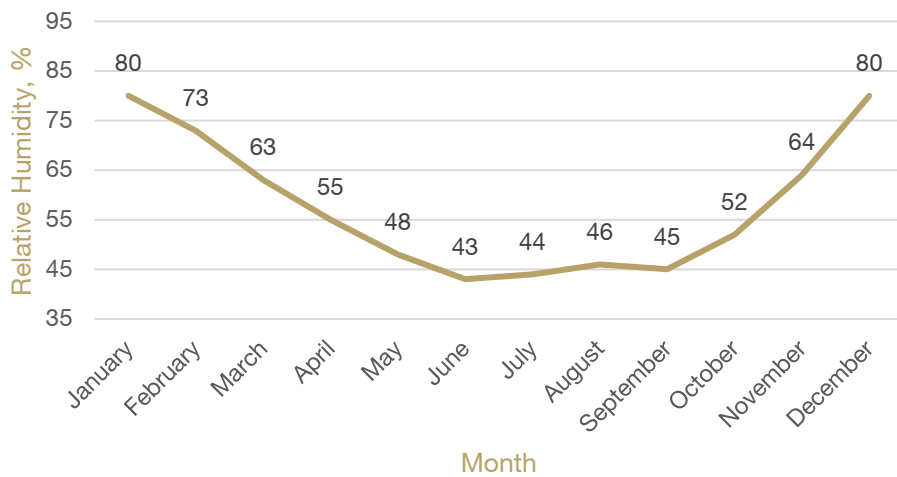


# Environmental Factors

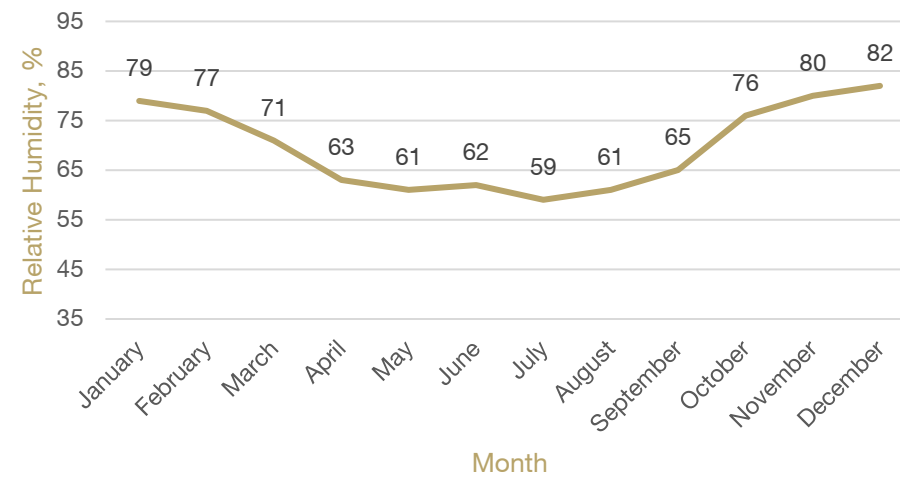
ALL climates experience humidity fluctuations throughout the year. Some examples include:

- **California:** Relative humidity (RH) can range from 30% to 80% in a yearly cycle
- **Pacific Northwest:** Predominate rainy season with prolonged high humidity levels
- **The Midwest:** Extreme storms including snow and wind

Monthly Average Relative Humidity for Sacramento, CA



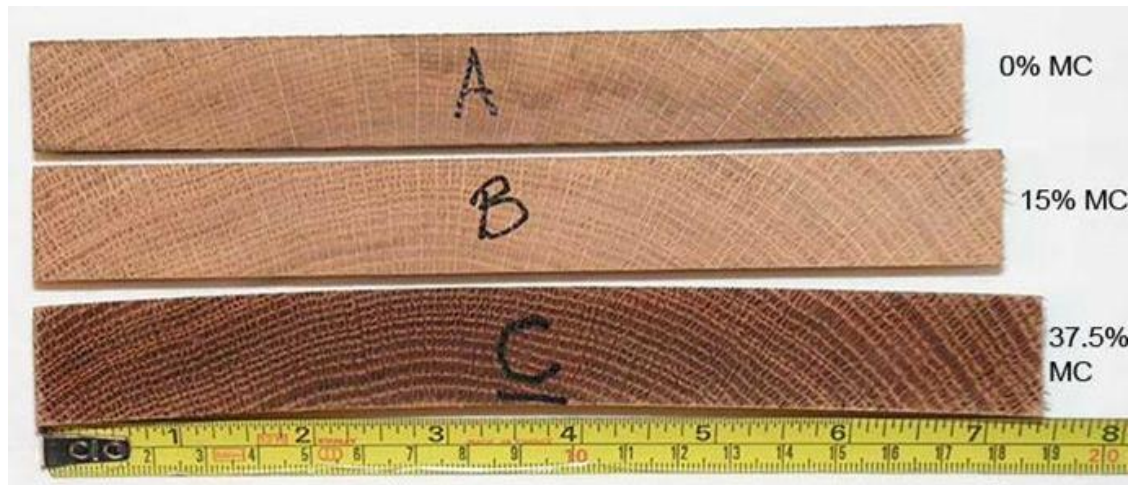
Monthly Average Relative Humidity for Portland, Oregon



# Relative Humidity Effects on Wood

**Expansion** is seen when wood absorbs the moisture from its environment (fluxing with humidity levels)

**Shrinkage** occurs when wood dries out due to lack of moisture and lowered humidity levels

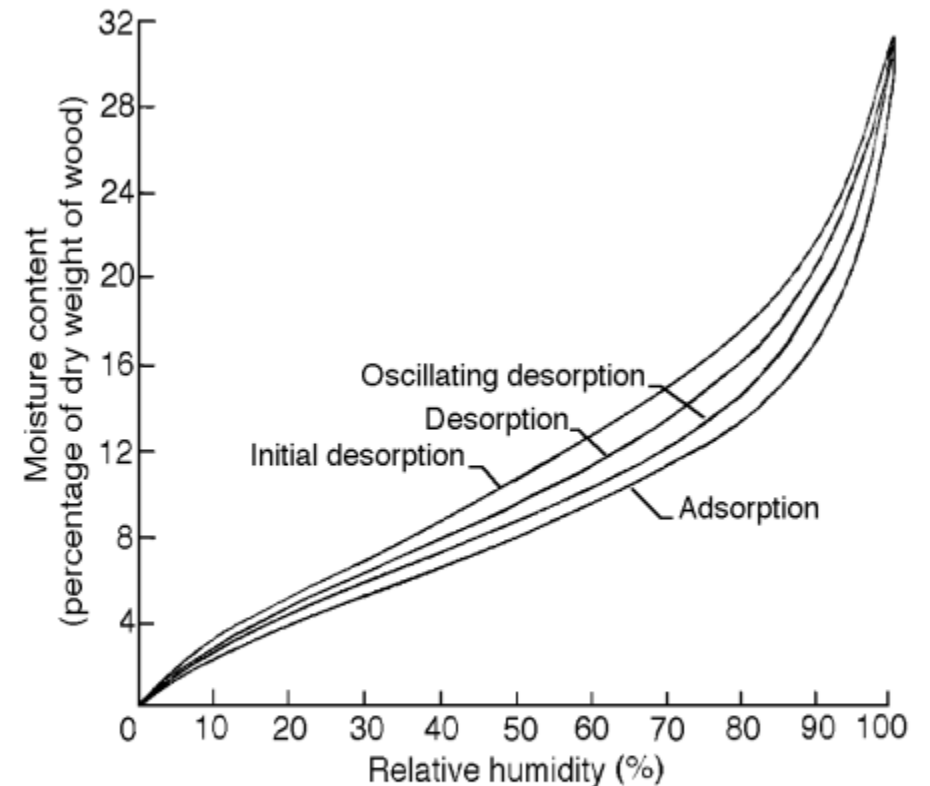


## Moisture Content (MC)

The measure of how much moisture is within wood. This value changes with the environmental conditions.

# Relative Humidity Effects on Wood Cont.

- Moisture content of wood in relation to RH ranges 6% to 16% for typical North American environments
- Moisture content of wood is directly proportional to the expansion percentage
  - Variations are seen in relation to growth ring direction
- Rainscreen boards will mostly expand across their width
- Maximum expected expansion = 1/8"



**Figure 3–2. Moisture content–relative humidity relationship for wood under adsorption and various desorption conditions.**

# Why You Don't Want to Use Furring Strips

- Furring strips are extremely susceptible to rot and decay
- They are made of low-grade softwoods containing sapwood which has very low durability
- Furring strips also limit airflow only
  - ExoClad QuickClips allow for 360 degree airflow
  - This is important to prevent rot

# Top Competitors on the Market

Wood Haven Rainscreen System  
Monte Verde  
DeckWise  
Timber Holdings  
Summary

# Wood Haven Rainscreen System



# Wood Haven Rainscreen System

Advertised Use	Hardwood Siding
Material	Aluminum
Requires Furring Strips	Yes.
Expansion Claims	None.

# Design Critique & Analysis

- Furring strips are required with this clip
- This clip's only advantage is that it hides the fastener but it offers no additional advantages like airflow and drainage
- The clips cannot compensate for board expansion



# Wood Haven Grad System



# Wood Haven Grad System

Advertised Use	Hardwood Siding
Material	Aluminum rail, plastic clip
Requires Furring Strip	No, but uses a similar rail system
Expansion Claims	None.

# Design Critique & Analysis

- Rail system is directly fastened to wall
- Boards require custom grooves in order to snap onto clip – no versatility
- Spacing is only offered in one size therefore only one board width can be used
- The clips cannot compensate for board expansion

Specialty Lumber  
Solutions  
Viking Clip



# Specialty Lumber Solutions Viking Clip

Advertised Use	Hardwood Siding
Material	Aluminum
Requires Furring Strip	Yes.
Expansion Claims	None.

# Design Critique & Analysis

- Furring strips are required with this clip for airflow
- This clips only advantage is that it hides the fastener, but it offers no additional advantages like airflow and drainage
- The clips cannot compensate for board expansion

MataVerde  
Climate-Shield Rain  
Screen System



# MataVerde Climate-Shield Rain Screen System

Advertised Use	Wood Siding
Material	Aluminum
Requires Furring Strip	No
Expansion Claims	None



# Design Critique & Analysis

- The clips cannot compensate for board expansion
- They require two screws for every clip which increases installation time

# DeckWise Hidden Siding Fastener System



# DeckWise Hidden Siding Fastener System

Advertised Use	Hardwood Siding
Material	304 Stainless Steel
Requires Furring Strip	Yes
Expansion Claims	None
Online Retail Price	\$1.46 per piece

# Design Critique & Analysis

- Furring strips are required with this clip for airflow
- This clips only advantage is that it hides your fastener but it offers no additional advantages like airflow or expansion capabilities
- The clips cannot compensate for board expansion
- Requires 5/4 lumber ONLY, tons of extra weight

# Iron Woods Vanish Rain Screen Low-Profile



IRON WOODS

# Iron Woods Vanish Rain Screen Low-Profile

Advertised Use	Hardwood Siding
Material	Aluminum
Requires Furring Strip	Does not specify, but it would be recommended for proper airflow
Expansion Claims	None

# Design Critique & Analysis

- Furring strips would be recommended with this clip for airflow
- The clips cannot compensate for board expansion

# Iron Woods Vanish Rain Screen High-Profile





# MataVerde Climate-Shield Rainscreen Clip

Advertised Use	Hardwood Siding
Material	Aluminum
Requires Furring Strip	No
Expansion Claims	None

# Design Critique & Analysis

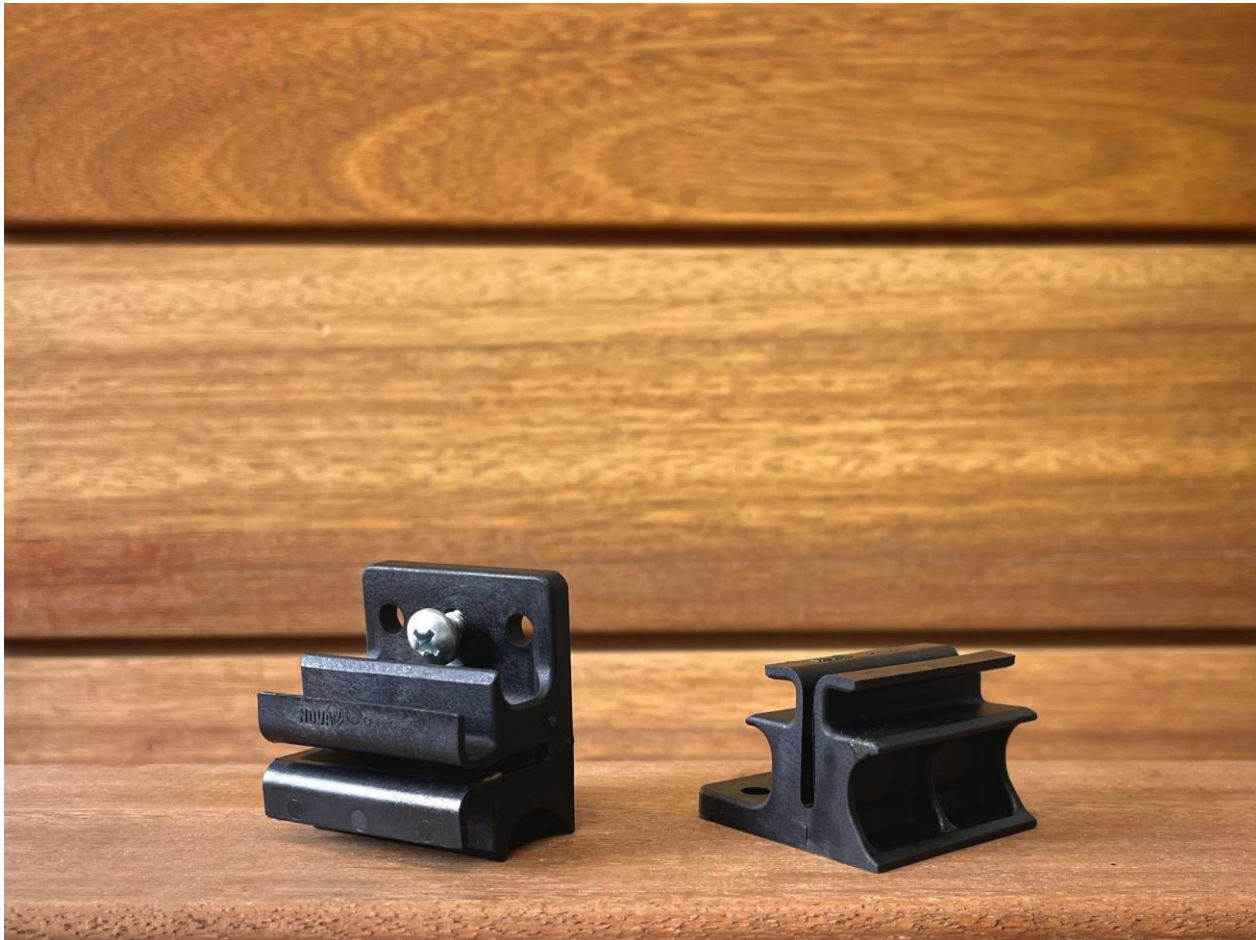
- The clips cannot compensate for board expansion
- Assumed weak point where fastener and square corner meet

Nova USA Wood

# EXOCLAD QUICKCLIP



# EXOCLAD QUICKCLIP

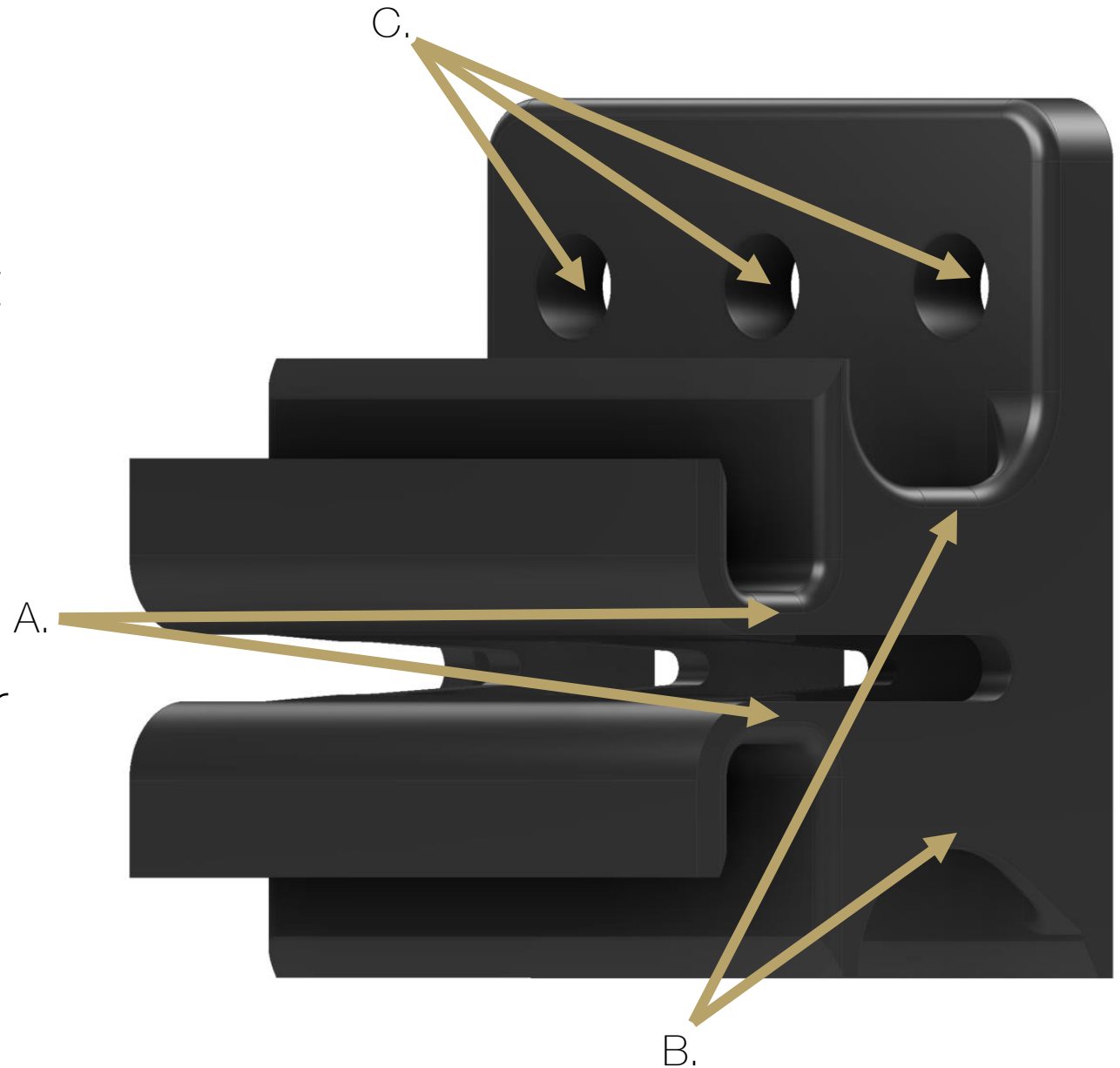


- Nova USA Wood has developed rainscreen siding clip designed for seasonal expansion of hardwoods
- There is NO other clip on the market that can achieve all the features that the ExoClad<sup>®</sup> QuickClip<sup>®</sup> can

# Features

- A. Flexible arms to allow the wood to expand and contract
- B. Reinforcements to allow continuous spring back and keep tension on boards in all conditions
- C. Multiple fastener holes allow for variance in stud material or stud placement (in case you miss!)

*IMPORTANT: All clip systems are required to be fastened through the sheathing and into house framing or metal stud*

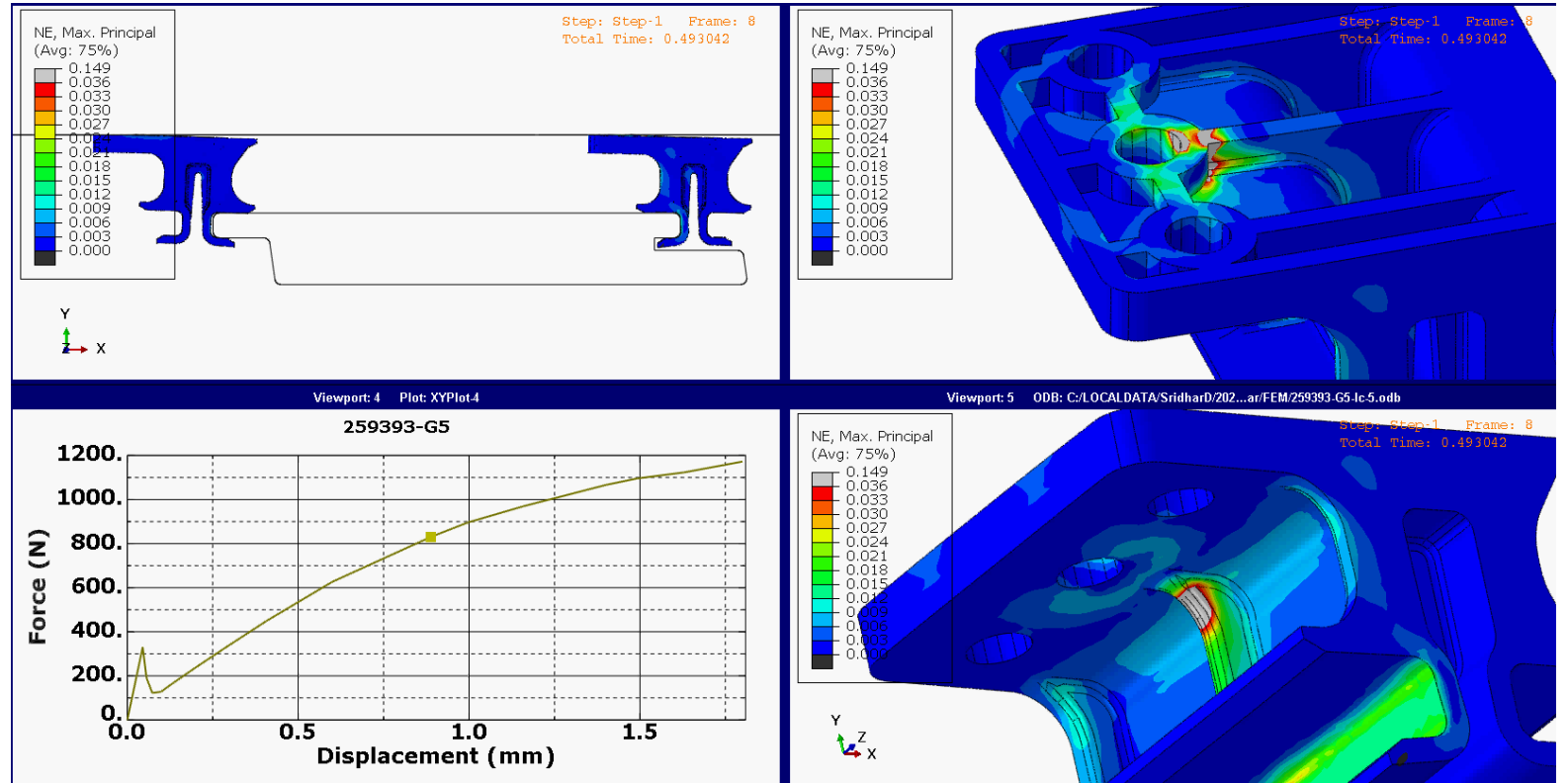


# Material: Nylon 6/6 (Polyamide 6/6)

- Injection-mold, 13% glass fiber reinforced heat-stabilized resin
- Economical production cost to help keep prices low for customers
- High abrasion resistance (resistance to wear down)
- Resistant to fatigue (can withstand repetitive movement for long periods of time without failure)
- High strength
- High dimensional stability
- Noise dampening (no squeak)

# Lateral Loads

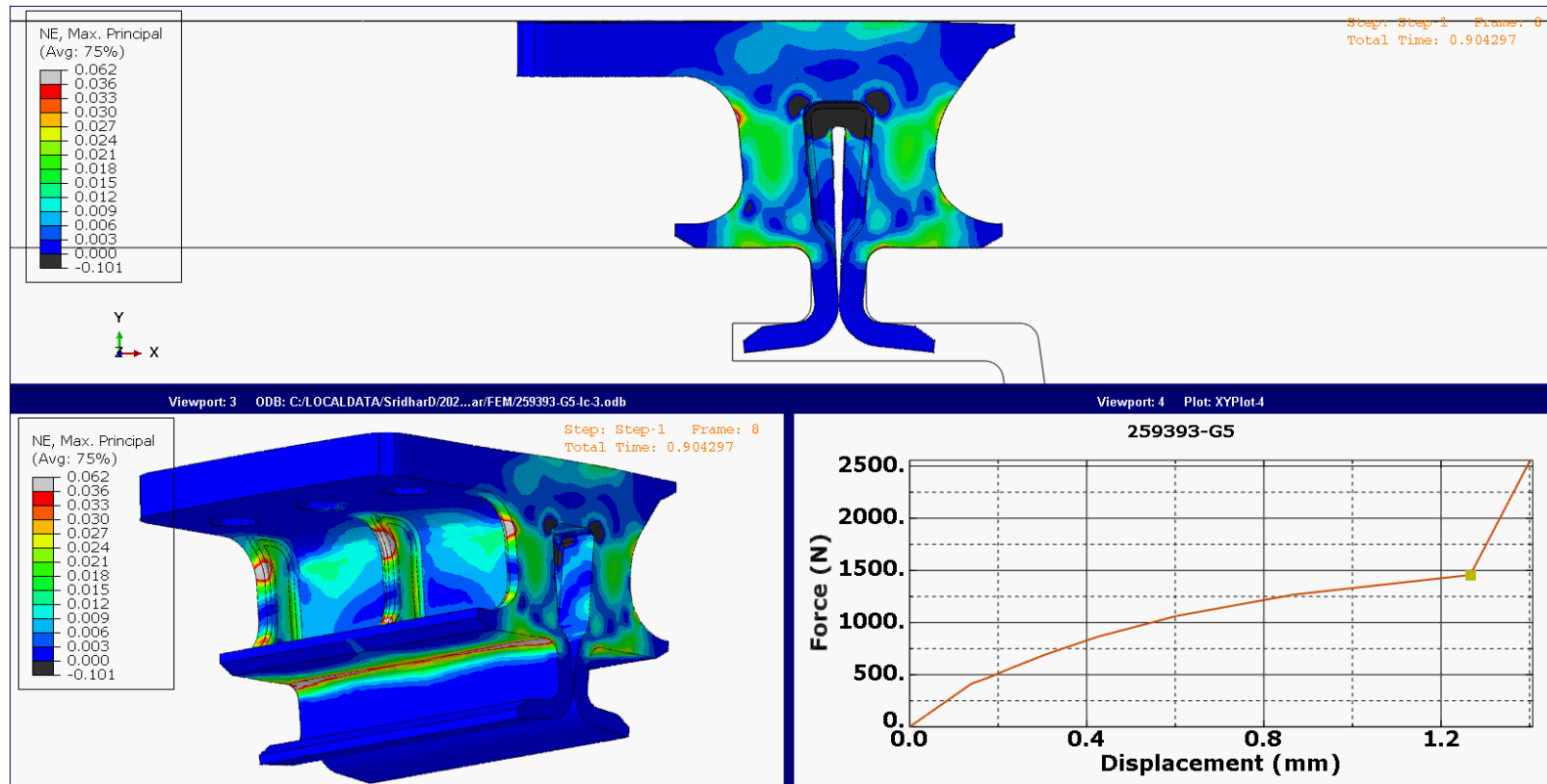
The ExoClad<sup>®</sup> QuickClip<sup>®</sup> was specifically designed to be used with a single screw 2" – 2 1/2" #9 or #10 exterior grade, pan head, stainless steel screw. The length is to ensure the fastener goes through the sheathing and into the stud. Contact us for applications over concrete.



The ExoClad<sup>®</sup> QuickClip<sup>®</sup> is predicted to be able to withstand lateral loads up to 185 lbf PER clip before any failures begin occurring. Failure is defined here, NOT as catastrophic failure, but rather just any deformation.

# Compression Loads

- The ExoClad<sup>®</sup> QuickClip<sup>®</sup> is also designed to withstand compression loads up to 281 lbf PER clip due to expansion of the hardwood boards.





# Have a siding project in the works?

*Please reach out to the Nova team and we will be happy to assist in any way we can!*

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