

# CERACLAD Exterior Siding System Installation Guidelines (Caulk Joint)

Updated November 2023



CERACLAD

Triple-Coated Rainscreen Siding Systems

[www.ceraclad.com](http://www.ceraclad.com)

# Contents

	Page
<a href="#"><u>1. CERACLAD Installation Standards</u></a>	2
<a href="#"><u>2. General Precautions</u></a>	7
<a href="#"><u>3. General Installation Instructions</u></a>	16
<a href="#"><u>Technical Information</u></a>	24

# **1. CERACLAD Installation Standards**

## PART 1- DESIGN CRITERIA

### 1. Description

CERACLAD is a factory-finished fiber cement siding system which utilizes a proven rain screen technology. Suitable for new construction and retrofit projects, CERACLAD Rain Screen Exterior Siding System consists of pre-finished siding panels in a variety of patterns and textures, innovative panel clips and accessories, all of which have been designed for ease of installation and are supported by a 30-year limited product warranty. The system creates an air cavity for air passage which helps prevent condensation and mold in the wall cavities by releasing moisture that permeates through the building envelope to the outside. CERACLAD Rain Screen Exterior Siding System offers a solution for moisture incursion as well as factory applied coatings that will not only be pleasing to the eye but also allow for low maintenance requirements. CERACLAD is designed and manufactured exclusively for exterior walls and soffits.

### 2. Codes

A. KMEW CERACLAD™ fiber cement panels meet or exceed requirements of:

ICC Evaluation Service, Inc. (ICC-ES) Report No. ESR-1627

### 3. Physical Data

A. Finishes:

CERACLAD coated panels are factory finished with Photocatalytic coating applied over a U-V resistant ceramic coating.

CERACLAD coated panels are factory finished with UV-resistant ceramic coating applied over an acrylic paint.

CERACLAD CREATIV™ coated panels are factory finished with a UV inhibiting clear coating applied over acrylic paint.

B. Textures:

CERACLAD panels come in a wide variety of textures. For a complete list consult our website [www.ceraclad.com](http://www.ceraclad.com)

C. Panel Dimensions:

Hollow Core				Solid Core			
Thickness	Length	Height	Weight	Thickness	Length	Height	Weight
18mm (nom. 5/8")	3030mm (nom. 10')	455mm (nom. 18")	25kg (55 lbs.)	16mm (nom. 5/8")	3030mm (nom. 10')	455m (nom. 18")	27kg (60 lbs.)
Actual 0.71"	Actual 119.29"	Actual 17.91"	Texture Dependent	Actual 0.63"	Actual 119.29"	Actual 17.91"	Texture Dependent

D: Composition:

CERACLAD is a fiber cement panel which is manufactured with 44.5% recycled material. This recycled content includes 8% wood pulp, 55% Fly Ash, 31% pre- and post-consumer scrap material, and 6% other recycled materials.

E: CERACLAD Rain Screen Siding System has been tested in accordance with following specifications:

ASTM C1186	Standard Specification for Flat Non-Asbestos Fiber Cement Sheets
ASTM C1185	Sampling and Testing Non-Asbestos Fiber Cement Flat Sheets, Roofing and Siding Shingles, and Clapboards
ASTM E330	Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
ASTM E84	Standard Test Method for Surface Burning Characteristics of Materials
ASTM E119	Fire Tests of Building Construction and Materials
CAN/ULC S114	Standard Method of Test for Determination of Non-combustibility in Building Materials

#### F. Fire Resistance Characteristics:

CERACLAD panels have a Class 1 (A) Flame Spread Classification -0, Smoke Developed Classification -0 when tested in accordance with ASTM E84 as specified in the ICC ESR-1627.

CERACLAD Hollow Core and Solid Core Panels are Non-combustible when tested in accordance with CAN ULC S-114 Per testing carried out by labs Exova and Element.

#### G. Assembly Wind Resistance:

Please note that it remains the project engineer's responsibility to ensure CERACLAD is appropriate for a given structure.

Project-specific calculations should be made based on the applicable wind exposure, wall assembly, clip spacing and desired safety factor.

**Consult ICC ESR-1627 for full building code compliance report and Allowable Transverse Loads (design pressure / ASD) with 3.0 safety factor applied.**

#### 1.1.4 Green Statistics

CERACLAD Rain Screen Exterior Siding System has many ecologically friendly attributes that increase the sustainability of your project. CERACLAD helpful attributes can contribute to the overall performance of your building. Please see the following basic facts about the sustainable nature of CERACLAD.

- A. Recycled Content – CERACLAD panels are manufactured with 44.5% recycled material, with 30.3% Pre- Consumer and 14.2% Post-Consumer recycled materials.
- B. Disposal– CERACLAD panels are 100% clean for land fill.
- C. No VOC – Panels are factory painted in a controlled environment that reduces the overall need for paint, and properly handles the VOC in the factory. Panels delivered on site have no VOC.
- D. Reduced Maintenance – CERACLAD ceramic coating significantly reduces the energy, water, and cost of maintenance with superior ability to prevent dirt from adhering to the surface. The Ceramic coating also protects the paint from UV radiation and drastically reduces the number of paint cycles during the building's life. Ceramic panels have a 20-year limited warranty against color fade.
- E. Durability – Fiber cement CERACLAD panels are resistant to rot, insects, heat, cold and flame spread. Panels have a 30-year limited warranty and an expected life of 100 years when properly maintained.
- F. Building Health – CERACLAD system creates an air cavity for air passage which helps prevent condensation and mold in the wall cavities by releasing moisture that permeates through the building envelope to the outside. CERACLAD Rain Screen Exterior Siding System offers a solution for moisture incursion as well as factory applied coatings that will not only be pleasing to the eye but also allow for low maintenance requirements.

## PART 2 – INSTALLATION

### 1. General Requirements

- A. General: Install products in accordance with the latest installation guidelines of the manufacturer and all applicable building codes and other laws, rules, regulations and ordinances.
- B. Review all manufacturer installation and maintenance instructions and other applicable documents.
- C. CERACLAD is designed and manufactured exclusively for exterior walls and soffits. Do not use CERACLAD for any purpose other than application to outer walls and soffits.
- D. Do not install CERACLAD on walls with a radius.
- E. Staggering vertical sealant joints is not acceptable; sealant joints must run continuous with no running bond configuration.
- F. Panels installed horizontally may not be stacked continuously without a break on walls greater than 20' in height.
- G. Panels installed vertically cannot be stacked, each course must use a through wall flashing and starter bar.
- H. Seal panel field cut edges (except cut edges at caulk joints) with the KMEW specified cut edge sealer. See Pg. 21 for more details.
- I. Combinations of Structures, Sheathing Material, and Installation Methods:

Structure	Sheathing material	Installation method
Wood	◆ Plywood/OSB (min. 1/2")	Horizontal installation
		Vertical installation
Steel	◆ Glass Mat Gypsum (5/8" or 16mm)	Horizontal installation
		Vertical installation
Continuous Insulation w/ Hat Channel furring	◆ Glass Mat Gypsum (5/8" or 16mm)	Horizontal installation
		Vertical installation

#### Caution:

- Carry out necessary reinforcement work when required due to the regional conditions, windspeed, building height, or other factors.  
~ KMEW assumes no responsibility for any problems resulting from failure to carry out the necessary reinforcement work. ~
- CERACLAD cannot be directly installed onto a concrete substrate.

### 1.2.2 Wall Requirements

- A. Proper substrate shall be provided to the installer. The wall shall be sufficient to withstand normal construction and live loads.
- B. Defects in the wall must be reported and documented to the specifier, general contractor and owner for assessment. The installer shall not proceed unless defects are corrected.
- C. Substrate flatness/plane shall be within 1/16" every 32".
- D. CERACLAD panels cannot be installed directly to stucco, brick, CMU, tile or similar substrates. Wood battens or metal Z-girts can be used to provide a suitable substrate for attachment.
- E. CERACLAD is designed and manufactured exclusively for exterior walls and soffits. Do not use CERACLAD for any purpose other than application to outer walls and soffits. Staggering vertical sealant joints is not acceptable; sealant joints must run continuously with no running bond configuration.
- F. Do not install CERACLAD where the backside could be exposed to rain.
- G. The CERACLAD ventilation structure requires "inlets", which take in outdoor air, "air cavities", through which the air circulates, and "outlets", which release the air outside.
- H. Install windows so that the frame projects out to allow a caulking joint between the window frame and CERACLAD panel.
- I. The window should project at least 1 1/4" (30mm) from the substrate,

### 1.2.3 Attachment Requirements

- A. Plywood/OSB sheathing must be nom. 1/2" thick or greater.
- B. Clips attached directly to wood stud framing or to steel stud framing through plywood require only one screw per clip.
- C. Clips attached directly to only steel stud framing or sub-framing require two screws per clip.
- D. Clips attached only to plywood sheathing require two screws per clip.

- E. Pre-drill panels before using any nails or screws. Use a drill bit that is 1mm smaller than the fastener.
- F. Consult applicable technical data sheet for correct fastener type and placement to withstand specified design wind loads.
- G. Clips should be within 3" of any panel end for horizontal installations. For vertical installations, install bottom clips as close as possible to the starter bar, no more than 3" above the starter bar.
- H. Do not directly fasten any item to the panels. Provide blocking behind panel cavity and fasten objects through the panels and into the blocking and building framing. Panels are not structural sheathing.
- I. Panels must be installed a minimum of 6" above finished grade.
- J. Panels must be installed a minimum of 2" above concrete and decks.

#### 1. Acceptable Sealants:

Ceraclad does not supply, warranty, or approve the sealant used with metal joiner bars at panel joints and abutments.

The sealant selected shall comply with the following performance specification:

- Single component, low-modulus silicone
- ASTM Specification C 920, Type S, Grade NS, class50, or class100/50, Use NT, M, G, A and O

For the application of sealant in the panel joint :

- Apply low adhesive painter's tape to both sides of the joint prior to application/tooling for a clean caulk line.
- Remove tape before sealant cures.
- If excess sealant adheres to the panel, remove completely with a putty knife or cloth before the sealant cures.

Install the sealant in accordance with the manufacture's instructions.

It is recommended to perform a field pull test according to the sealant manufacturer's instructions to ensure a proper adhesive bond.

#### 2. Acceptable Outside Corner Alternatives to CERACLAD Pre-Formed Corners

Acceptable Alternatives for outside corners are listed below. CERACLAD does not allow mitering of the panels to construct a mitered outside corner. When using material listed below in lieu of CERACLAD preformed corners a couple basic rules apply.

1. No open joints, all joints must be closed with sealant or covered with materials listed below.
2. When using an alternative material to cover the panel ends; the panel coverage must exceed  $\frac{3}{8}$ ".
  - A. Brake metal outside corner
  - B. Metal reveal type trims
  - C. Wood/Fiber cement trim

#### 3. Window Jambs and Sills

The standard method of installation at the window jambs and sills is to seal the window to the panel end with an approved sealant. If windows do not project at least 1-1/4" from the substrate, finish the window sill with a flashing instead of a sealant joint.

The window head shall always be finished with a head flashing.

When using material listed below in lieu of a sealant joint follow the following basic rules:

1. No open joints, all joints must be closed with sealant or covered with materials listed below.
2. When using an alternative material to cover the panel ends; the panel coverage must exceed  $\frac{3}{8}$ ".
  - A. Metal
  - B. Wood/Fiber Cement Trim

#### 1.2.4. Handling and Carrying:

- A. Carry panels by holding them on edge.
- B. Protect panels and accessories from weather.
- C. Place pallets on a flat even hard surface
- D. Do not place panels directly on the ground.
- E. Do not stack more than two pallets.
- F. Do not stack a pallet with more panels on top of pallet with less panels.

#### 1.2.5 Cutting Panels:

- A. Cut panels from the backside.
- B. Cut panel width must be greater than 2 ½".
- C. Clean cut panels by blowing dust away with compressed air or with a clean dry cloth.
- D. Siding panels contain silica. When drilling, cutting, or abrading siding panels during installation or handling, observe the following precautions: a) work outdoors when feasible or in a well ventilated area when indoors, b) wear a dust mask or use a respirator, c) warn other workers and building occupants in the area, and/or, d) advise building occupants to close windows in the immediate area of work.
- E. Use a panel saw or circular saw with a vacuum attachment to cut CERACLAD panels. **Use of a wet saw to cut product is not permitted.**

## **2. General Precautions**



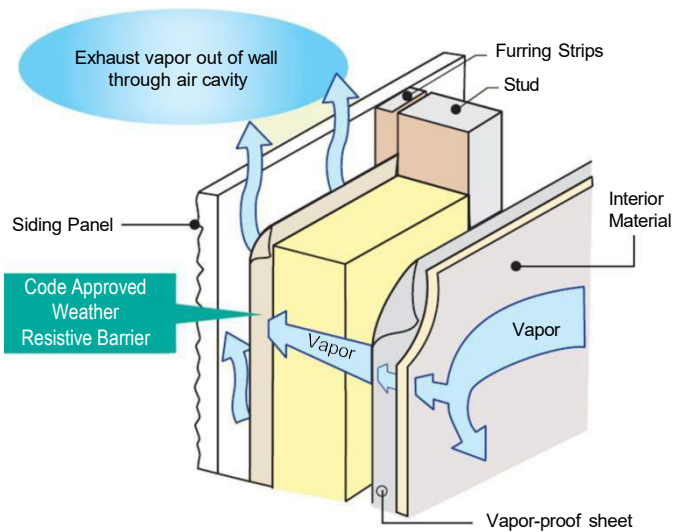
## 2. General Precautions

### 2.1. Design Precautions

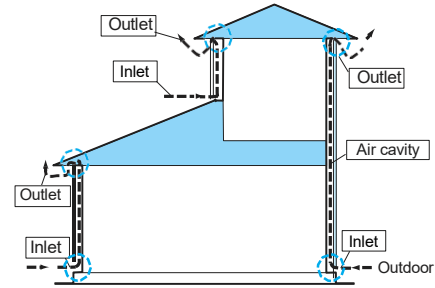
#### (1) Guidelines For Designing a Rain Screen System

- The CERACLAD ventilation structure requires "inlets", which take in outdoor air, "air cavities", which the air circulates, and "outlets", which release the air outside.

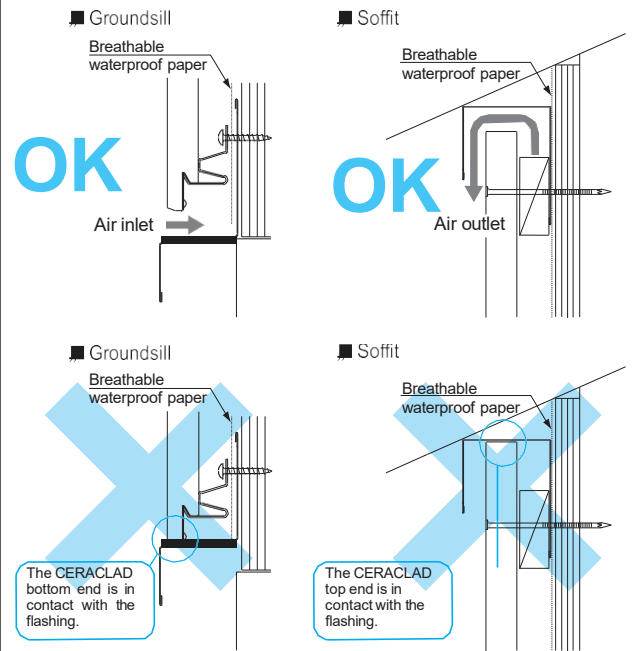
- Avoid blocking inlets, air cavities, and outlets when installing CERACLAD.**
- A code approved weather resistive barrier must be used behind the CERACLAD rain screen system.**



[Key points of the rain screen system]



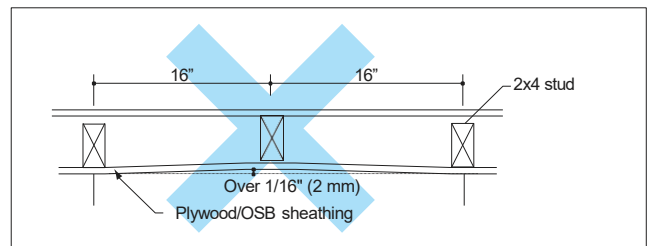
[Details of the rain screen system]



#### (2) Substrate Flatness

- The maximum acceptable unevenness of the structural members, including pillars and beams, and the sheathing boards is 1/16" (2 mm) every 32".

- Do not install CERACLAD on sheathing with an unevenness of over 2 mm.**  
~ Otherwise, this may result in appearance defects, cracks, or breakage of the panels. ~



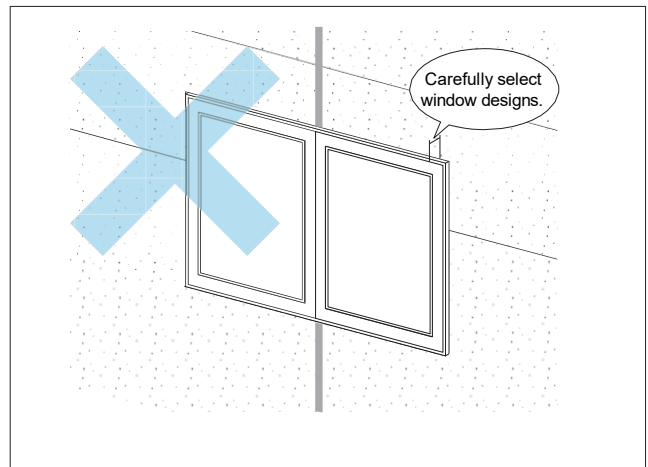
## 2. General Precautions

### 2.1. Design Precautions

#### (3) Window Installation

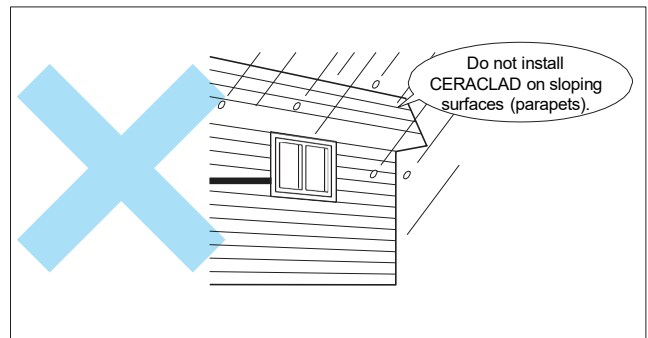
- Install windows so that the frame projects out to allow a caulking joint between the window frame and CERACLAD panel.
- \* The window should project at least 1-1/4" (30mm) from the substrate.

- **If using a sealant joint window detail, window frames must project at least 1-1/4" from the substrate.**
  - ~ If the window frame is recessed, extra flashing is required around the window~



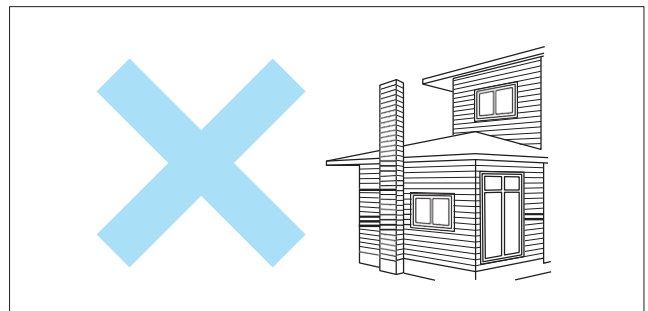
#### (4) Sloping Parapets

- **Do not install CERACLAD on sloping parapets.**
- **Do not install CERACLAD on horizontal surfaces.**
  - ~ CERACLAD is not a roofing material and should be installed only on straight exterior walls. ~



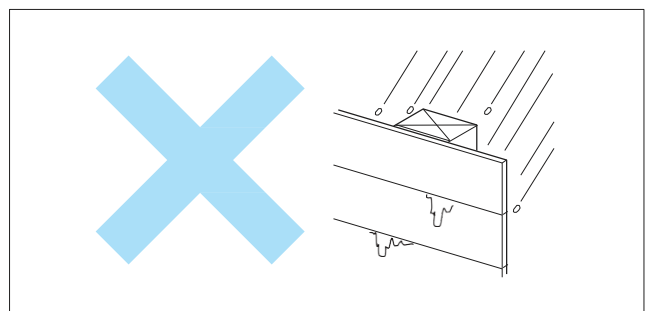
#### (5) Installation on Chimneys

- **Do not install CERACLAD on chimneys.**
  - ~ Otherwise, CERACLAD could be damaged by moisture and heat generated by the chimney. ~



#### (6) Installation on Fences

- **Do not install CERACLAD in locations exposed to rain from behind.**
  - ~ Otherwise, water can be absorbed and cause the panel to deform. ~



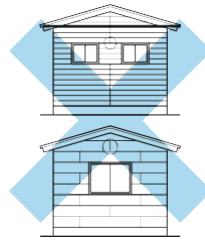
## 2. General Precautions

### 2.2. Installation Precautions

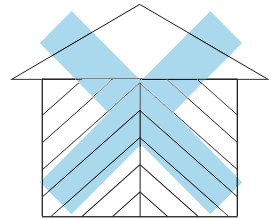
#### (1) CERACLAD Layout guidelines

- **Do not stagger CERACLAD sealant joints.**  
~ Sealant joints must run in a continuous line, otherwise the joints may fail. ~
- **Do not diagonally install CERACLAD panels.**  
~ Diagonal installation as shown in the figure may cause rain penetration because rain can flow along the shiplap joints. ~

Do not stagger sealant joints.

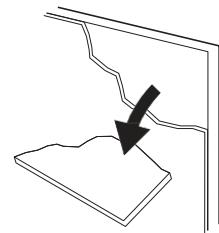


Do not install panels diagonally



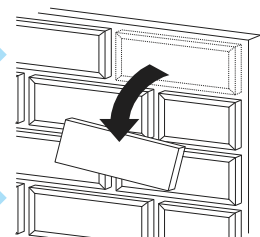
#### (2) Installation Directly Onto Stucco

- **Do not install CERACLAD directly onto stucco-finished walls.**  
~ Furring is required to secure the panels when installing over stucco. ~



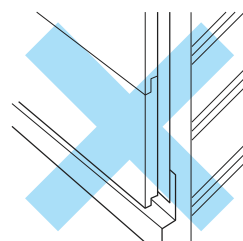
#### (3) Installation Directly on to Brick Walls

- **Do not install CERACLAD directly on brick walls.**  
~ Otherwise, the brick tiles may be removed, causing CERACLAD to fall. ~



#### (4) Installation Directly onto Concrete

- **Do not fasten panels directly onto concrete walls. Furring is required.**  
~ This could cause damage to the panels or cause the panels to fall. ~

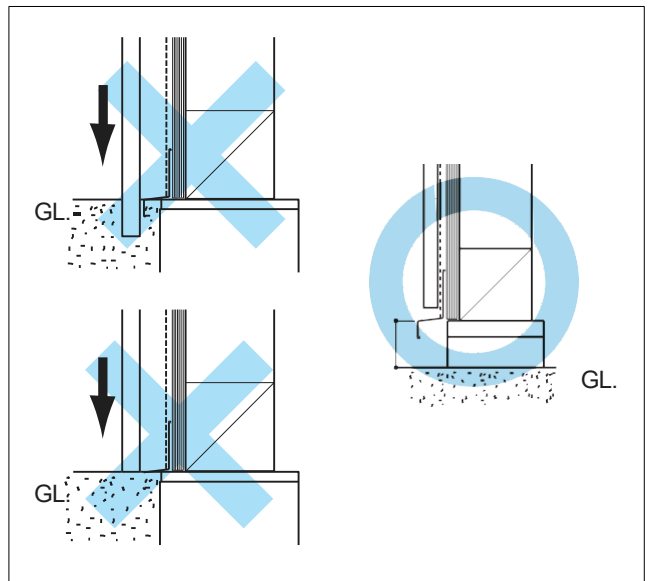


## 2. General Precautions

### 2.2. Installation Precautions

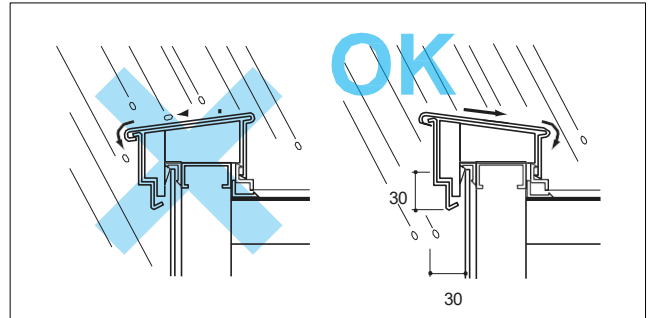
#### (5) Panels at Grade Level

- **Do not bury CERACLAD panel ends into the ground or allow them to come into contact with the ground surface.**
  - ~ Otherwise, panels in contact with the ground may absorb water and deteriorate. ~
- \* Allow for a clearance of 6" (150 mm) or more between the plywood/OSB sheathing and the ground surface.



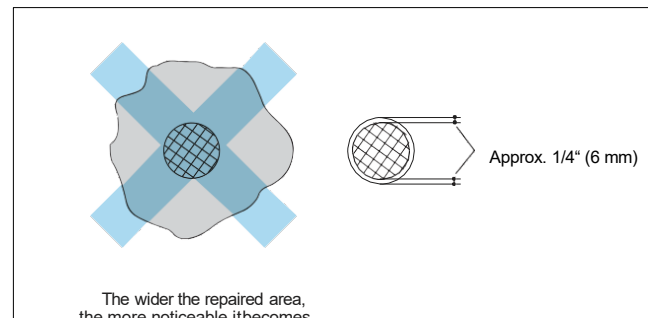
#### (6) Headboards/Copings

- **Do not use CERACLAD as parapet caps.**
- **Design the slope of copings so that rainwater will not run down the CERACLAD panel surfaces.**
  - ~ Copings or headboards should direct water away from the CERACLAD panels. ~



#### (7) Touch-Up Paint Application

- **Do not apply an excessive amount of Repair Paint to nail heads.**
  - ~ Otherwise, the repaired areas may become noticeable with age. ~



#### (8) Using Caulking for Touch-up repairing

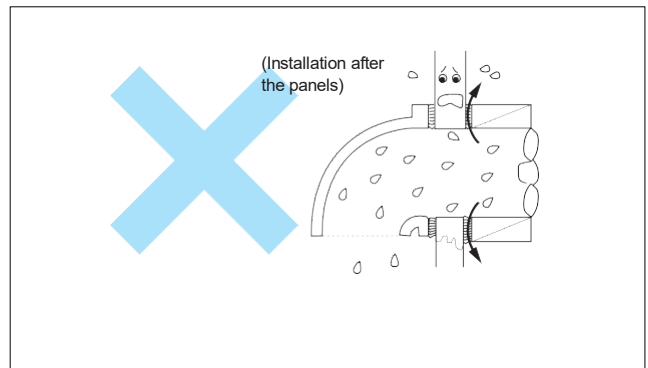
- **Do not use caulking for Touch-up or any repairs.**
  - ~ Caulking used for Touch-up or repair will fade over time. ~

## 2. General Precautions

### 2.2. Installation Precautions

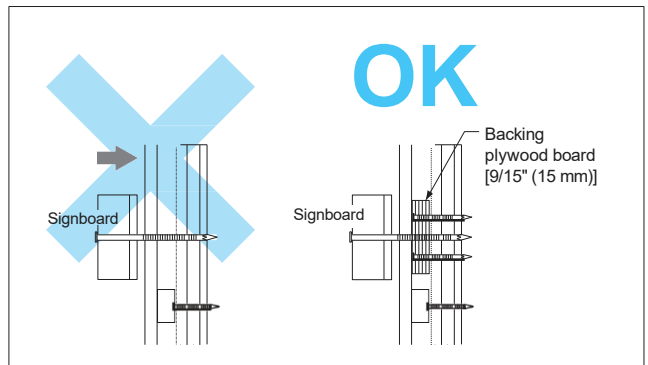
#### (9) Installing Vents or Other Penetrations

- **Install vents and other penetrations prior to panel installation or otherwise seal them from the air cavity.**
  - ~ The rain screen's air cavity must be kept separate from the building's ventilation system. ~



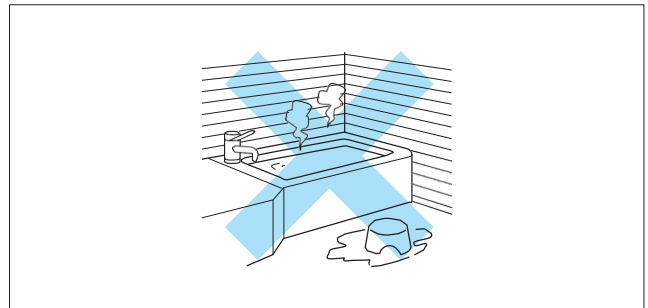
#### (10) Installation of Signs or Other Objects

- **Do not fasten signs or other objects directly to CERACLAD panels.**
  - ~ Objects must be secured into the building substrate, with furring used to fill the air cavity. ~



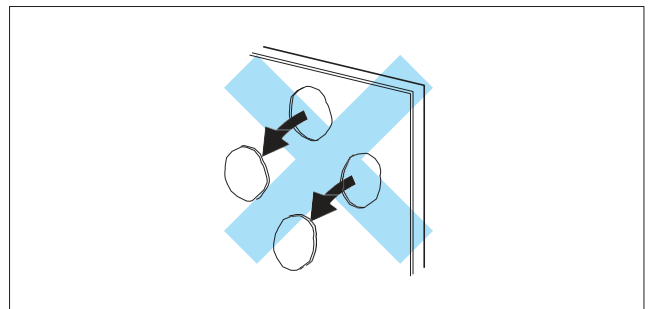
#### (11) Very High Humidity Locations

- **Do not install panels in areas constantly exposed to water or steam.**
  - ~The panels may warp or deteriorate under these conditions. ~



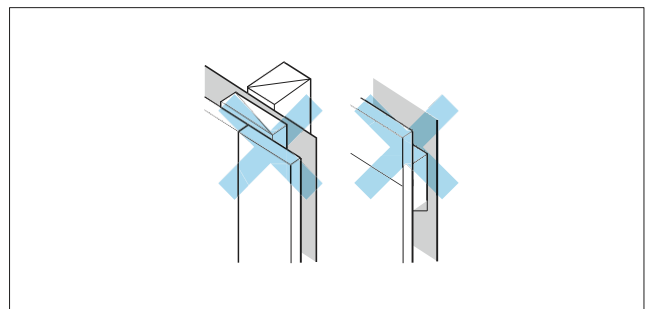
#### (12) Panel Painting/Coating

- **On-site coating is not recommended for ceramic products, which are pre-finished.**
  - ~Usage of recoating materials not recommended for the product may result in peeling or damage to the finish. ~



#### (13) Panel Butt Joints

- **Do not join the panels with a simple butt joint.**
  - ~Butt joints may cause water intrusion. All panel joints must be ship lapped or sealed with an approved sealant. ~



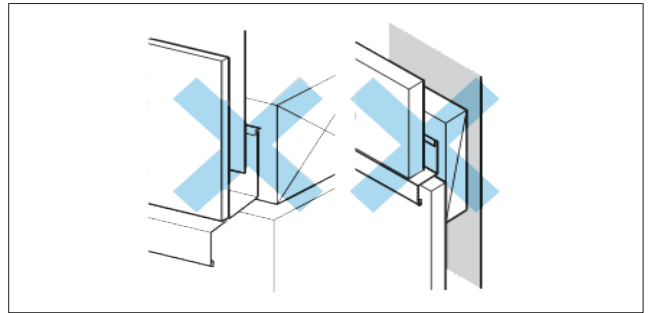
## 2. General Precautions

### 2.2. Installation Precautions

#### (14) Air Gaps At Flashing Details

- An air gap must be present between the panels and any through wall flashing or sill flashing.

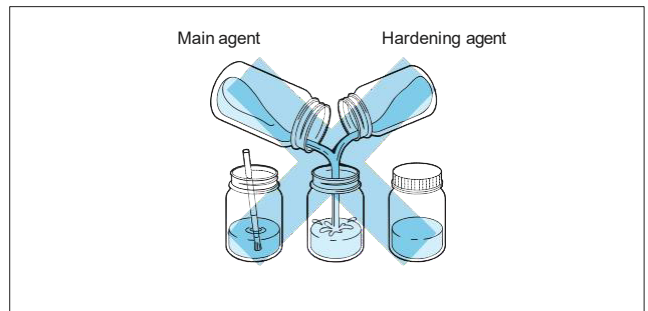
~A lack of a gap between the flashing and the panels can lead to water intrusion and deterioration of the panels.



#### (15) Mixing Touch Up Paint Agents

- Do not mix touch up paint components in quantities smaller than indicated.

~Incremental mixing could cause color mismatching or improper performance. ~

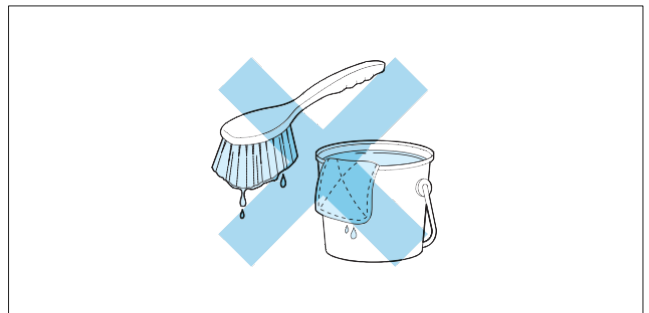


#### (16) Cleaning Panel Dust

- Do not use water when cleaning dust off of the panels.

~Panel dust may harden and stain the panel if it becomes wet.

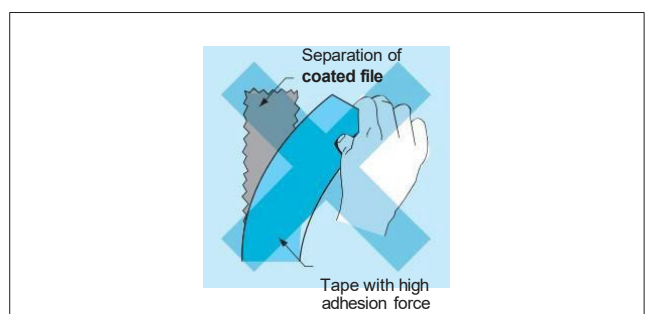
~Remove dust with compressed air or a dry and clean rag or brush.



#### (17) Using Tape for Caulking or Painting

- Use only painter's tape on the surface of the panels.

~Tape not safe for painting may damage the panel's protective coating when removed. ~



## 2. General Precautions

### 2.3. Health and safety

#### 1. Warning about silica dust

##### **WARNING: AVOID BREATHING SILICA DUST**

Cladding panels contain silica. Inhalation of respirable silica dust can cause silicosis a potentially disabling lung disease. When drilling, cutting, or abrading cladding panels during installation or handling, (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed **PEL**, use **NIOSH/MSHA** approved respirator, (3) Warn others in area. For further information, refer to material safety data sheet or consult employer.

FAILURE TO ADHERE TO WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY.

#### 2. Handling and carrying

- One pallet weight approx. two tons.
- Carry the panels by holding their lengthwise edges under your arm.
- Take extra care to avoid hitting anything with the panels or dropping them, or the edges may be damaged.
- Don't touch the panels with dirty hands.

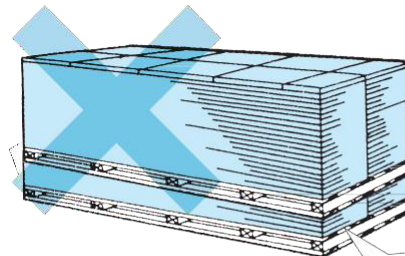
How to carry the panels

**OK**



#### <Transportation by vehicle>

- When transporting the panels by vehicle, stack them flat.
- When loading panels onto a pallet, strap the panels down and use blocks to protect the panel edges.
- When loading/unloading panels, take extra care to avoid damaging them.
- When hoisting panels, put plates between the panels and ropes to avoid damaging the panels.
- Don't stack the pallet with more panels on top of the pallet with fewer panels.



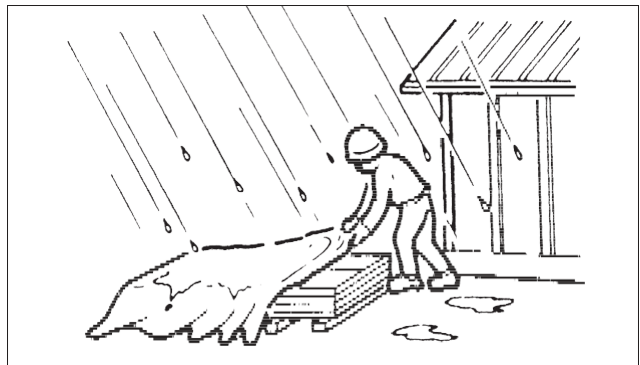
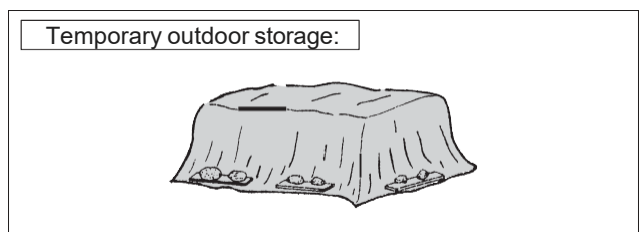
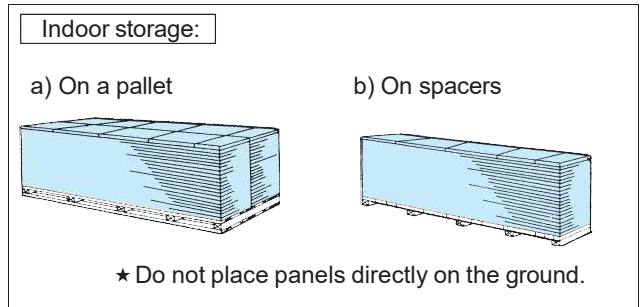
Don't stack a pallet with more panels on top of a pallet with fewer panels.  
- Otherwise, the stacks may collapse. -

## 2. General Precautions

### 2.3. Health and safety

#### 3. Storage and Handling

- Indoor storage (as shown) recommended. Due to the difficulty of controlling conditions, outdoor storage on a short-term / temporary basis only, and only with additional precautions to limit panel exposure to the elements.
- When storing panels at the jobsite for an extended period of time, store indoors with the following additional precautions: Cover with a tarp, and store flat in the manufacturer's original packaging in a secure, dry, temperature-stable environment away from the elements, and away from potential physical damage. Particular care needed to avoid humidity and moisture when storing panels with uncoated faces.
- Manufacturer cannot be responsible for panel failure or damage due to improper storage.
- Store the panels flat and under cover. Keep the panels dry and off the ground prior to installation to avoid moisture conditions that could affect the quality of the work.
- The panels are not to be stacked more than two pallets high. Pallets should be loaded and unloaded with a forklift or sling. Taking care not to drop the pallet.
- Keep the panels clean when handling on site and take care not to damage the edges.
- When necessary to stand panels on edge prior to installation, take care to avoid contact with rough and abrasive surfaces that could damage the factory-applied coating or sealer.
- Panels should be carried mid span and on edge for ease of handling and to avoid breakage.



#### 4. Health precautions

- 1) When cutting the panels, prolonged inhalation of a large amount of dust may be harmful to your health. Please use the follow precautions:
  - Use a vacuum saw with built in dust collection. Do not use a wet saw to cut panels.
  - Wear a dustproof mask and dustproof glasses.
  - Work in a well-ventilated location.
  - Make sure to wash your hands.
- 2) When using a solvent-based material, such as repair paint, waterproof sealer, caulking, and caulking primer, wear an appropriate mask and protective gloves, and work in a well-ventilated location.

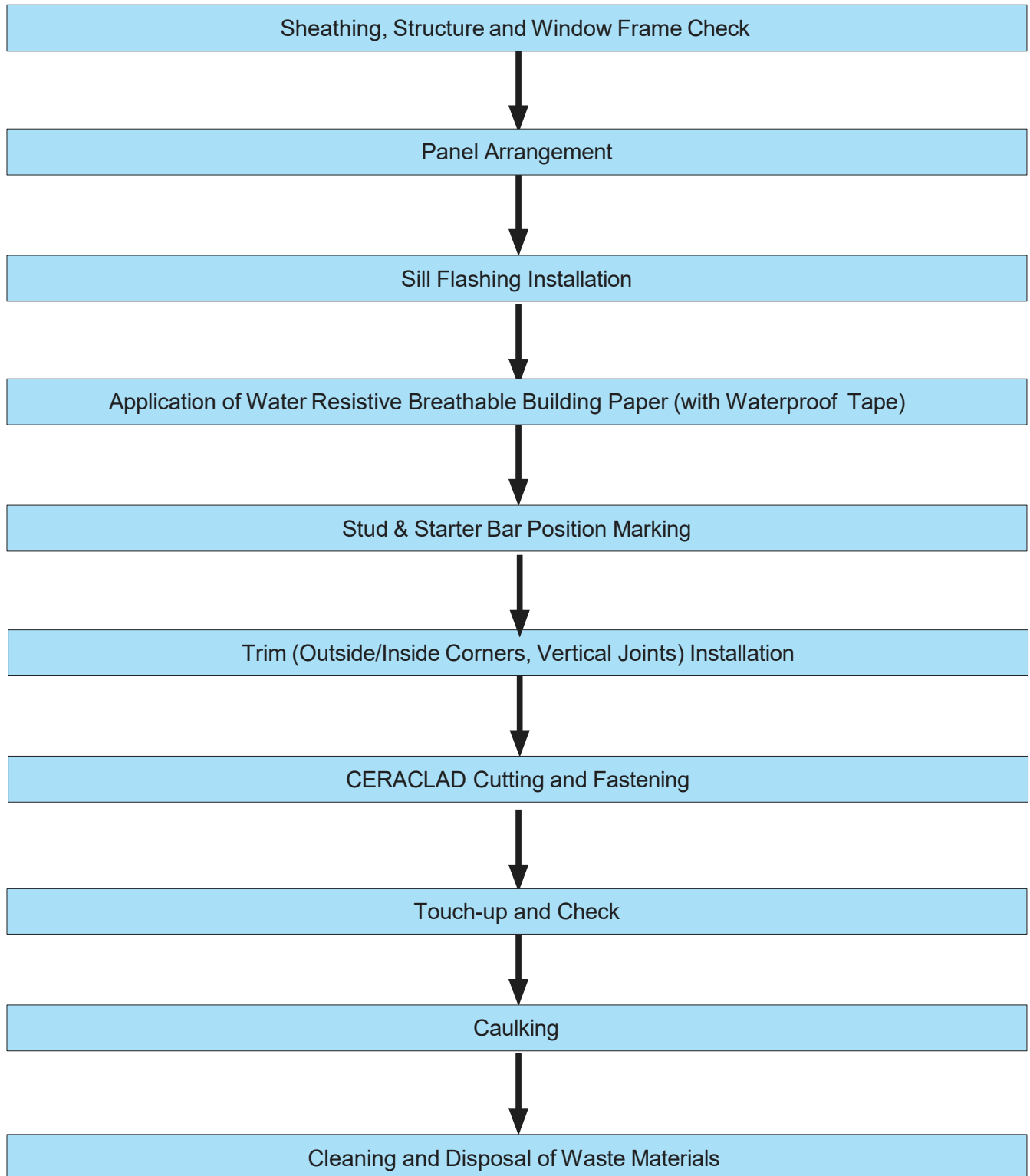




### **3. General Installation Instruction**

### 3. General Installation Instruction

#### 1. Installation Order for Wood/Steel Structure with 15mm Clips



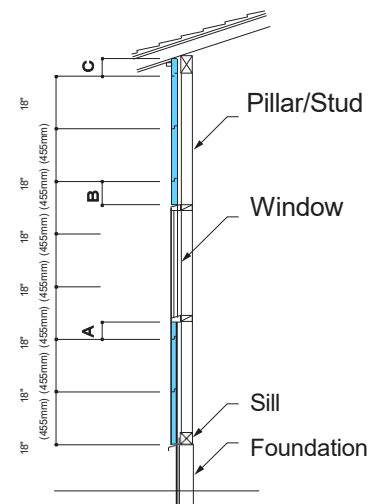
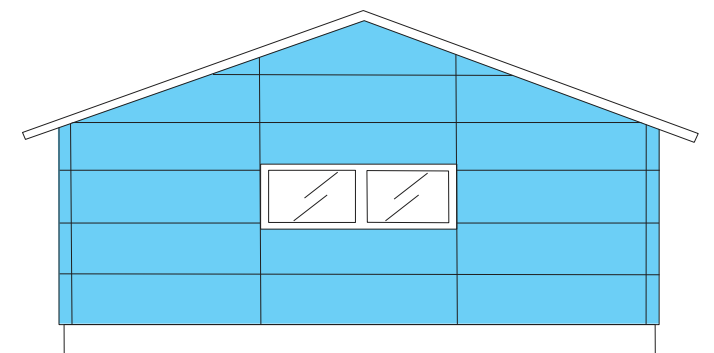
# 3. General Installation Instruction

## 2. Panel Arrangement

### <1> Horizontal Application

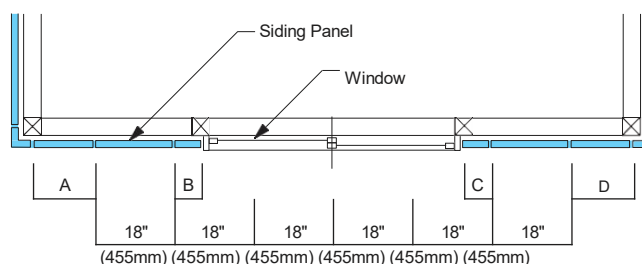
- ☐ When laying out the panels, take into consideration the appearance of the building, the length of provided accessories and how to minimize material waste.
- ☐ Layout sealant joints in advance to create an aesthetically pleasing finish.
- ⚠ Include the inside dimension of the pre-formed outside corners in consideration of panel arrangement.**
- ☐ Vertical joints should be aligned with studs.
- ☐ Include the sealant joint width (3/8") for each vertical joint.
- ⚠ Pay attention to window locations and eave soffit height to provide more than 2 ½ inches for the panels above and below window frames (A, B, figure below right) and panels below the soffit (C). Avoid installing panels that are less than 2 ½ inches wide in these locations.**

Example of arrangement from center of the building



### <2> Vertical Application

- ⚠ Include the inside dimension of the pre-formed outside corners in consideration of panel arrangement.**
- The furthest left and right panels should be at least as wide as the side of the outside corners.
- Two methods for avoiding narrow panel pieces are included in this manual: "Centering the Joint" or "Centering the Panel". Refer to the next page for these methods.
- Arrange the panels from the center of the building wall. Make sure the panels along both window frame sides (B and C) are at least 2-1/2 inches wide.



# 3. General Installation Instruction

## 2. Panel Arrangement

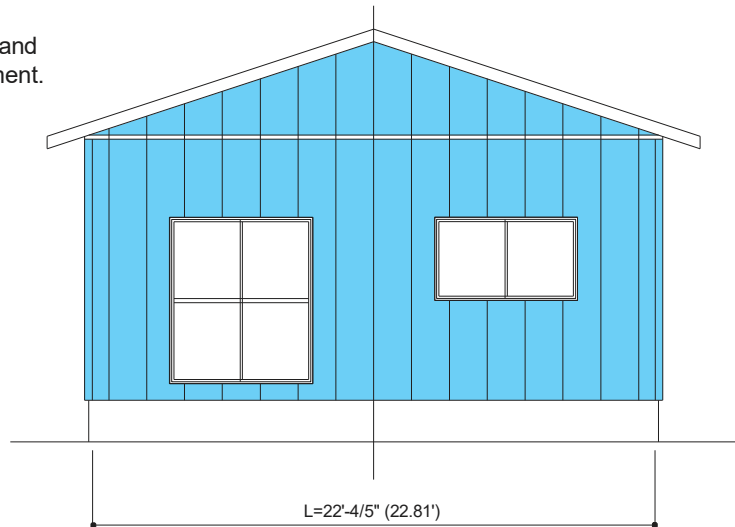
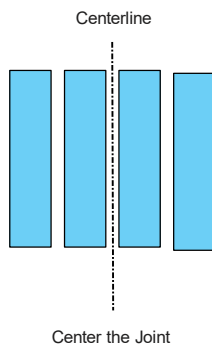
### <2> Vertical Application.

#### Center the Joint

The building wall centerline matches a vertical joint.

(Example) The building wall length is 22'-4/5".  
Then convert it to feet, resulting in 22.81'  
 $22.81' / 2 \div 1.49'$  (panel width) = 7.65

When the number after the decimal point is 0.5 and above, then choose "**Center the Joint**" arrangement.

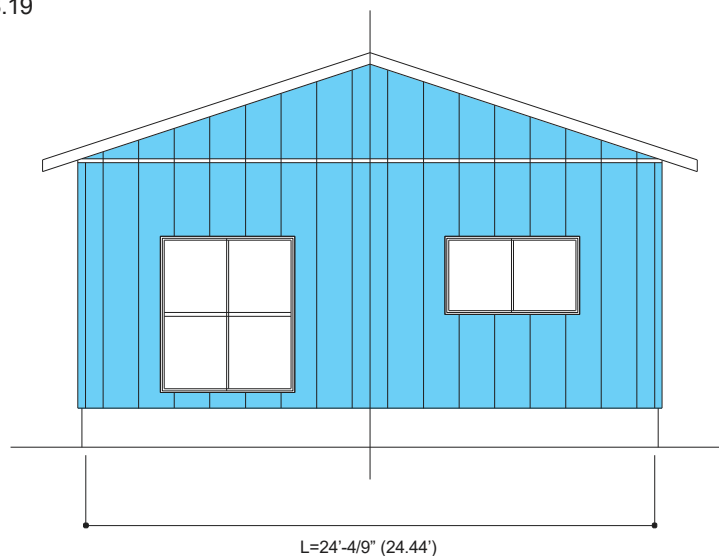
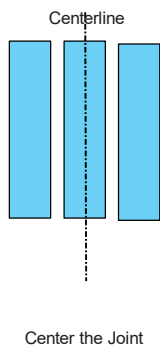


#### Center the Panel

The building wall centerline matches a vertical joint.

(Example) The building wall length is 24'-4/9".  
Then convert it to feet, resulting in 24.44'.  
 $24.44' / 2 \div 1.49'$  (panel width) = 8.19

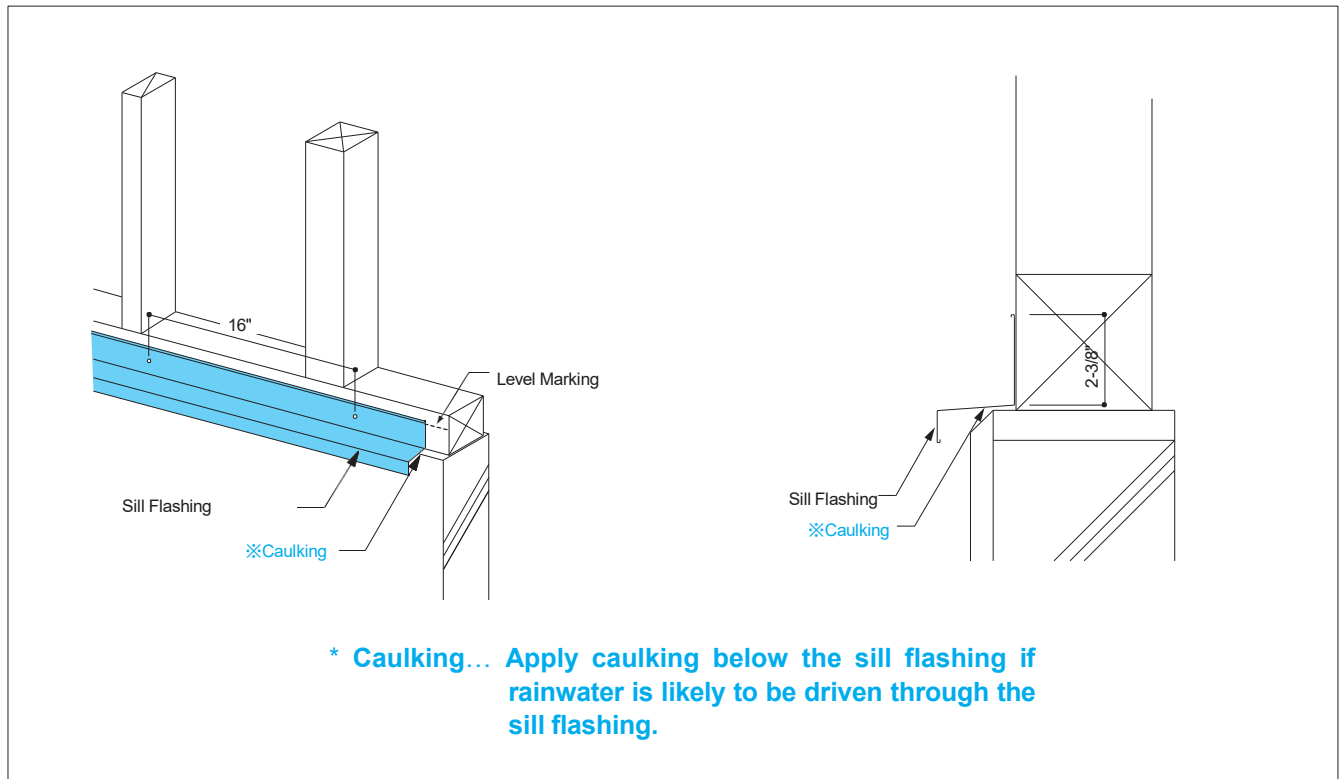
When the number after the decimal point is below 0.5, then choose "**Center the Panel**" arrangement.



## 3. General Installation Instruction

### 3. Installation of Sill Flashing

- Install sill flashings along the sills with a leveling tool.
- Sill flashings should be fixed with ring nails for wood structures and with pan-head screws for steel structures at 16" on center.



- Install sill flashings along the sills with a leveling tool.
- Sill flashings should be fixed with ring nails for wood structures and with pan-head screws for steel structures at 16" on center.

### 3. General Installation Instruction

#### 4. Cutting CERACLAD

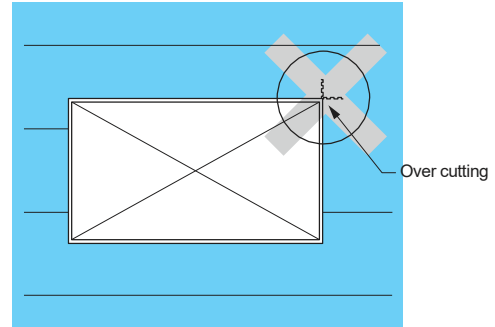
⚠ Be careful when handling small pieces of siding as they can be fragile.

##### <1> Cutting Panels

Use a dust collecting vacuum saw and dust-proof mats when cutting CERACLAD.

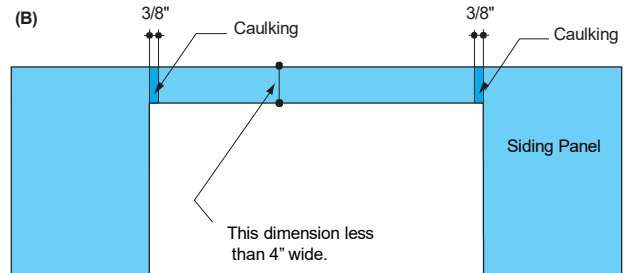
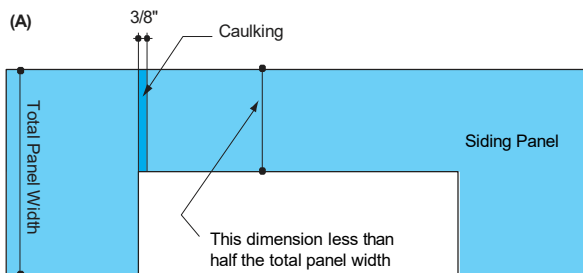


Over cutting may cause cracks on the panel surfaces or rain leakages.



⚠ Do not use water when cleaning dust off of the panels. Use compressed air or a clean dry cloth.

⚠ If small pieces are installed above or below a wide opening, it is recommended to follow example B and completely separate the smaller section.



**Example A:** If the cut piece above or below an opening is less than half the total width of the panel but greater than 4" wide, separate the panel into 2 pieces and fill the gap with caulk (approx. 3/8" wide) at one edge of the opening.

**Example B:** If the cut piece above or below an opening is less than 4" in width, separate the panel into 3 pieces and fill the gaps between each piece with caulk (approx. 3/8" wide).

Note: Minimum panel dimension is 2-1/2". Avoid cutting panels smaller than this width.

##### <2> Treatment of Cut Edges

- Apply KMEW specified waterproof sealer to the following panel edges

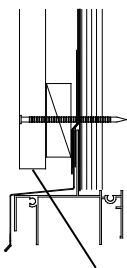


- Soak the brush with the sealer and brush back and forth from edge to edge of the application surface to ensure that the wet color is firmly applied to the panel edge surface.

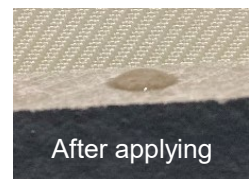
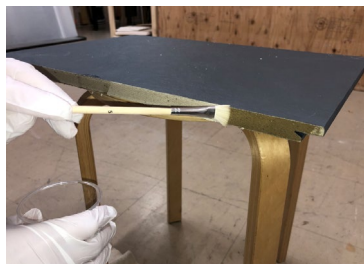
⚠ Ensure that the sealer does not extend beyond the panel edge.

##### Waterproof sealer application required

Exposed cut edges



Exposed cut edge



The sealer is applied to make the panel edge surface water-repellent.



Do not apply waterproof sealer to panel edges where caulking is to be applied. It may cause the caulking to peel off.

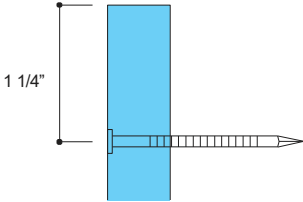
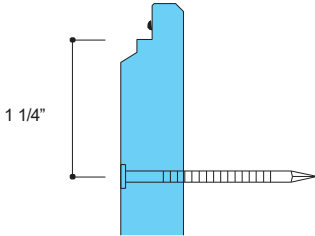
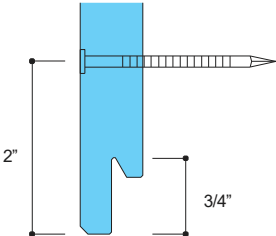
### 3. General Installation Instruction

#### 5. How to fix nails or screws

- Install spacer blocks or pressure treated furring behind panels that are fixed with nails or screws through the panel.
- Predrill pilot holes before driving face screws or nails through the panel. Use a bit that is 1 mm smaller than the fastener.

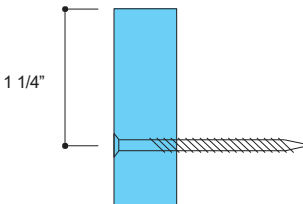
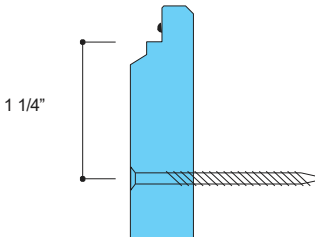
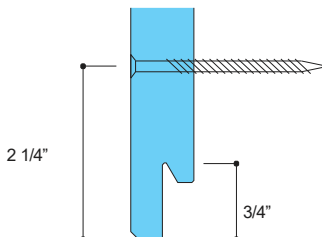
##### <1> Wood Structure

- The minimum distance should be 1-1/4 inches from the thick portion of the panel (not including the shiplap edges).
- Keep the minimum distance from the edge of siding, drill pilot holes (nail diameter - 1mm) and fix the siding panels with ring nails.
- Apply the touch-up paint on the nail heads.

Panel Edge	Ship-lap, Lower lip	Ship-Lap, Upper lip
		

##### <2> Steel Structure

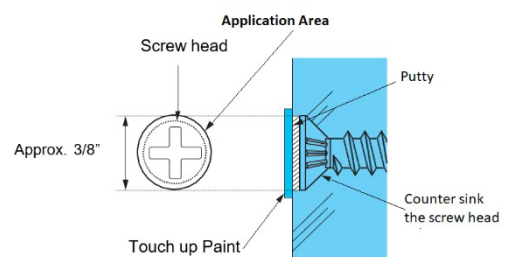
- Keep the minimum distance from the edge of siding, drill pilot holes (screw diameter - 1mm) and fix the siding panels with stainless steel screws.
- The minimum distance should be 1-1/4 inches from the thick portion of the panel except for shiplap lips.

Panel edge	Ship-lap, Lower lip	Ship-Lap, Upper lip
		

- Screw heads can be treated with one of the following methods:

1. Drive the screw just below the siding panel surface, apply repair putty to it, and apply touch-up paint after the putty has hardened sufficiently.
2. Apply touch-up paint on the screw heads. This method is only applicable for CERACLAD system screws, which are alloy coated stainless steel. Touch up paint will not properly adhere to bare stainless steel. Therefore, all locally purchased stainless steel screws must be finished using the method described in section 1 above.

EX. Applying touch-up paint after applying putty



### 3. General Installation Instruction

#### 6. Application of Touch-up Paint



**Please read before proceeding**

- Paint should be finished within the same day of mixing the paint ingredients. If the application cannot be completed within the same day, be sure to finish painting within 24 hours of applying the primer.
- Failure to follow the procedures below can result in poor color matching and may cause repaired portions to discolor over time. Please note that we assume no responsibility for such a case.
- Use no caulking materials in touch up repairing. Caulking used for touch-up will fade over time.
- Although the solid paint base may appear hard, it will work properly after vigorous mixing with the liquid hardener.
- Please refer to the material identification key to identify the ingredients.

##### Material Identification Key.



**Blue Label:**  
Paint Base













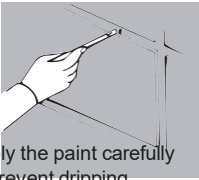

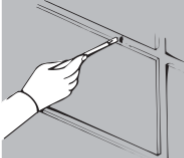
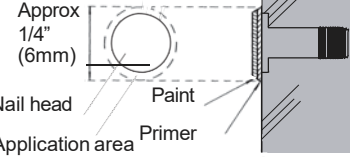


**Red Label:**  
Primer



**Green Label:**  
Hardener

- Follow these directions when applying touch-up paint.

<p>1) Preparation</p>	<ul style="list-style-type: none"> <li>• Ensure that the siding surface is completely dry. Avoid painting when it is rainy and wet or the temperature is 40°F or less.</li> <li>• Clean dirty painting portions.</li> </ul> <div>  <p>Be sure to finish application within a day, if possible, as both the primer and the paint have a working life.</p> </div>	<p>Touch up Paint Kit</p> <div>    </div> <p>Paint Base      Primer      Hardener</p> <p>Brushes </p>
<p>2) Mixing of touch-up paint</p>	<ul style="list-style-type: none"> <li>• Pour the entire bottle of hardener into the base paint bottle. Shake the bottle well.</li> <li>• The mixed paint is susceptible to air humidity; be sure to close the lid tightly after mixing and agitation.</li> <li>• The mixed paint should be used after 30 minutes and within 8 hours of mixing.</li> </ul> <div>  <ul style="list-style-type: none"> <li>• For best results mix the entire quantities of the two bottles. Incremental mixing may result in poor performance.</li> <li>• Leave the mixed paint alone for 30 minutes after mixing to stabilize the color tone.</li> <li>• Apply the mixed paint within 24 hours after applying the primer.</li> </ul> </div>	<div>   </div> <p>Paint Base      Hardener</p> <div>  <p>Hardener</p> <p>Put all of the hardener into the paint base bottle.</p> <p>Paint Base</p>  <p>Shake the bottle well until paint color becomes even.</p> </div>
<p>3) Primer application</p>	<ul style="list-style-type: none"> <li>• Avoid dripping during application. In case of dripping, remove it immediately with a clean cloth.</li> <li>• The primer is susceptible to air humidity; be sure to close the lid tightly after use.</li> </ul> <div>  <ul style="list-style-type: none"> <li>• For best results, apply sparingly.</li> </ul> </div>	<p>Brush</p> <div>   </div> <p>Primer</p> <p>Apply the paint carefully to prevent dripping.</p>
<p>4) Drying</p>	<ul style="list-style-type: none"> <li>• Allow 30 minutes for the primer to dry.</li> </ul>	
<p>5) Application of touch-up paint</p>	<ul style="list-style-type: none"> <li>• The mixed paint should be used after 30 minutes and within 8 hours of mixing.</li> <li>• Use the included brushes to apply the paint without dripping.</li> <li>• Apply the paint over portions applied with the primer.</li> <li>• Apply the paint within 24 hours after applying the primer.</li> </ul> <div>  <ul style="list-style-type: none"> <li>• For best results, use the paint sparingly and cover only the nail head.</li> <li>• Prime all locations before painting.</li> </ul> </div>	<div>   </div> <p>Approx 1/4" (6mm)</p> <p>Nail head      Paint      Primer</p> <p>Application area</p>
<p>6) Inspection</p>	<ul style="list-style-type: none"> <li>• Check for uncoated sections. Paint as needed.</li> </ul>	



## Technical Information

- Installation Instructions
- Reports and Certifications
- Specifications
- Technical Bulletins
- Technical Data Sheet
- Warranty
- Health, Safety and Sustainability



- **Technical Services Support**

**Western US**

David Shaw  
*Technical Manager*  
CERACLAD / KMEW USA, Inc.  
Direct: 425-305-7520  
Email: [david.shaw@ceraclad.com](mailto:david.shaw@ceraclad.com)

**Canada**

Hamed Sadeghi  
*Technical Specialist*  
CERACLAD / KMEW USA, Inc.  
Direct: 604-626-2927  
Email: [hamed.sadeghi@ceraclad.com](mailto:hamed.sadeghi@ceraclad.com)

**Eastern US**

Nathan Filipponi  
*Technical Sales*  
CERACLAD / KMEW USA, Inc.  
Direct: 984-259-4249  
Email: [Nathan.filipponi@ceraclad.com](mailto:Nathan.filipponi@ceraclad.com)

KMEW USA INC.  
15333 NE 90th Street Building S Suite 170  
Redmond WA 98052  
TEL: (425) 883-9290 | FAX: (425) 556-1860  
[www.ceraclad.com](http://www.ceraclad.com)