

# CARE AND INSTALLATION

Namari stone should always be stored above ground on pallets or skids. Keep away from construction traffic to avoid damage. If storing for an extended period of time, remove plastic and cover stone with a non-staining tarp. Care should be taken to allow for air circulation. It is recommended that installation be done by an experienced and skilled Stone Mason.

## **QUALITY CONTROL, PACKAGING, DELIVERY, INSPECTION & ACCEPTANCE**

**PRE-DELIVERY QUALITY CONTROL** – During the fabrication process, Namari is thoroughly inspected for chips and imperfections. Stones that do not pass inspection are removed from the production line. After fabrication, all stones are re-checked prior to packaging. All stones passing quality control are then packaged on pallets for shipment.

### **PACKAGING & DELIVERY –Proper packaging is critical to protect the stone and prevent staining and cure lines.**

- 1) Each pallet is prepared and protected in the same manner to maximize efficiency and performance.
- 2) EPS foam is placed between each piece of stone in a consistent manner. Each end will have at least 2” but no more than 4” of foam on top of the material. This allows for easy handling and air flow between layers.
- 3) Vertical faces and edges are protected with a full piece of EPS foam.
- 4) The stacked pallets are allowed time to dry for final packaging. (usually at least 2 days)
- 5) The dried pallets are then heat-shrink wrapped with UV protected plastic. The factory applied heat shrink wrap lasts over a year and protects the material from the sun and weather.
- 6) Dried and cured pallets are loaded on the truck for delivery and inspected prior to leaving the factory. EDGE PROTECTORS must be placed between the tie down straps and material. Pallets are not loaded without sufficient protection from any strapping material used to secure it to the truck.
- 7) Edge protection is required prior to shipment to prevent damage caused by straps.

**INSPECTION & ACCEPTANCE** - Great effort is taken to eliminate damage caused by material handling & shipping. Upon delivery, all stone should be checked for chips, cracks, stains, or broken pieces. Any damage should be noted on the delivery slips and communicated to the representative.

Things to look for that may indicate possible damage:

- 1) Pallet is packaged differently from factory packaging If the pallet is not heat shrink wrapped and packed differently than standard factory packaging, the stone has been handled by others after leaving the factory (see fig 1a- factory packaging).

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- 2) Visible damage to the exterior of the pallet
- 3) Corner has cracked / crushed stone underneath packaging caused from an impact.
- 4) Pallet has visible patches or tape. This indicates the factory packaging was damaged and the material should be checked carefully.
- 5) Drastic differences in color or texture within the same pallet. Although it is normal to have minor variations in color, pallets are packaged at the factory with material that was manufactured with the same material and cure time and any extreme differences should be inspected..
- 6) If you are uncertain about the condition of any pieces, set aside and question your representative.
- 7) Stones are darker & wet. The stones may have been exposed to weather. If this happens, please allow the stones to fully dry and the color should even out as they dry.
- 8) It may be possible to use pieces with minor damage in areas that require job-site cutting.

**INSTALLATION CONSTITUTES ACCEPTANCE of its condition and is not warranted for issues caused during or after installation. Namari will not pay for any installation costs to replace damaged stone.**

## **JOBSITE STORAGE AND INSTALLATION**

### **STORAGE at JOBSITE:**

Namari stone should always be stored above ground on pallets or skids. Keep away from construction traffic to avoid damage. If storing for an extended period of time, cover stone with a non-staining tarp to allow for air circulation. If the stone is restacked, make every effort to stack it neatly and with protection.

If the stone is wet, it must be covered completely or not covered at all. Otherwise, cure lines can form over time. Cure lines are caused when a stone is wet and partially covered for extended periods of time. The uncovered parts of the stone dry faster than the covered parts and over time this can leave a “cure line”. Cure lines will usually fade away with time, but they are unsightly and preventable.

### **INSTALLATION**

Namari coping is a handmade stone requiring careful handling and proper installation techniques. It should always be installed by an experienced masonry professional. One of the unique qualities of Namari coping is the consistency of color and texture. An improper installation can create issues that detract from this consistency. There are guidelines that must be followed to ensure a smooth & clean job.

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- Type N mortar (ASTM C270) is recommended for pool coping installations. Prior to setting, please confirm weather conditions are within mortar installation recommendations.
- Wet the head and bed joints of the stone prior to setting the coping. This will help the stone to bond with the mortar to minimize shrinkage and cracking in joints.
- For best results, apply mortar to the back of the stone. (also known as “back-buttering”). If needed, add additional mortar to the bed joint and head joints. (there should be enough mortar to create a slight excess that will be forced out at the ends and edges of the stone during final setting).
- **SET THE FIRST STONE** & tap into place with a rubber or wooden mallet. Be sure not to damage the stone by during this process. The first stones should serve as a benchmark for the of the job. The final thickness of the mortar should not be less than ½” or more than 1-1/4”. Once a stone is set, do not adjust of move the stone.
- **AVOID VOIDS!** If insufficient quantities of mortar are used or the bond was broken prior to curing it will create a void between the base and stone which can, and probably will, become a future problem. VOIDS are gaps between the stone and beam indicating a poor bond. Voids may be a source of a future moisture problem and or a loose stone that will break from the beam. Stones with “hollow” sounds when taped should be removed and reinstalled.
- **GOOD RULE OF THUMB:** Mortar should be “squeezed” out from under the stone at all edges as it is tapped into place, if no mortar is squeezed out, there is probably not enough.
- **WARNING:** If mortar gets on the surface of the stone, wipe off as quickly as possible and do not allow it to dry. Hardened mortar is nearly impossible to remove from the stone without etching the surface of the material.
- Tool the mortar and joints when mortar is thumbprint hard to protect against joint shrinkage. Time will be dependent on mortar and weather conditions.

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- Once the stones have been set, do not readjust or move the stone as it will break the bond with the mortar, and this could lead to cracking in joints. Adjusting, moving, walking over, leaning on freshly set stones will break the bond. If this happens, it is recommended that the stone be taken up and re-set with additional mortar.
- You may use mortar with tooled joints or rake the mortar out 3/8" deep for sealant joints between stones. If using mortar in joints, hairline cracks may occur. This can be minimized by doing the above installation recommendations and ensuring mortar for the joint is thumbprint hard before tooling the joint. Pointing mortar is usually composed of the following: 1-part Portland cement, 1-part hydrated lime, and 6-parts masonry sand.
- **IMPORTANT – THE EDGE OF EACH STONE SHOULD BE TAPED AT THE MORTAR JOINT PRIOR TO SETTING THE STONE WITH MORTAR OR GROUT.** Taping the edges of Namari with painter or stucco tape before applying grout or mortar is the best way to prevent mortar stains. This step will take a little more preparation time but will result in a much nicer job & minimize cleanup and stains. The tape should be removed in a timely manner to avoid staining.
- After mortar is applied to the joints, use water and a sponge to remove mortar smears from the stone **while the mortar is wet and before the mortar sets.** Failure to do this will result in mortar smearing on the stones which may create a difficult if not impossible stain to remove. Hardened grout & mortar are very difficult to remove. Prevention is the key.
- After tooling and pointing, and after the mortar has set, clean the stones with water and a soft brush. Do not use a metal bristle brush or high-pressure power washer to clean the stones. If necessary, an approved commercial masonry cleaner can be used for further cleaning. If using a commercial masonry cleaner, please follow the cleaner's manufacturing recommendations for using their product on precast stone.

### **DO'S AND DON'TS**

- **DO** handle Namari coping with care to minimize chipping and breakage. Pick up and carry stones from the long sides rather than the corners and ends. Use the EPS foam packaging material for padding and protection on the jobsite as needed.

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- **DO** apply a waterproof product such as cementitious waterproof backing or bituminous damp proofing to the back, sides and at and below grade surfaces prior to installation. This will minimize the likelihood of dirt and groundwater entering the surface of the stone; a frequent cause of staining, efflorescence and enhancement of crazing. Check that the water repellent coating does not affect color or texture when dry. Namari is not recommended for areas that will be submerged under water.
- **DO** Prevent excessive water issues. It is best to address grading, draining, & moisture issues prior to installation. Prolonged exposure to excessive moisture from the ground or areas adjacent to the coping may cause temporary darkening of the coping from this moisture. If there is a known potential for moisture issues, we recommend damp proofing the back and sides of the stone to be installed in the moisture prone area. Most common sources of water migration include poor drainage, sprinkler systems, low spots, hollow cavities under the stone, poured decking adjacent to the stone, leaks, etc.
- **DO** treat the coping with a silane or silane/siloxane blend water repellent coating (Sealer) after setting.
- **DO NOT** pour concrete against unprotected Namari coping. When pouring cast in place concrete next to Namari coping, separate with a material to create a barrier prior to pouring. Splash stains and tracking from other materials are common problems.

### **DURING INTALLATION - CLEANING AND SEALING**

NAMARI can stain just like any other stone or natural material so we recommend:

- Apply a waterproof product to the back, sides, and areas that are at and below grade surfaces of the coping
- Keep Namari coping protected during installation
- Sealing Namari with a silane or silane/siloxane blend water repellent coating after setting the stones.

The most common stains you are going to encounter during construction are dirt and mortar smears. A general rule of thumb is to use the least aggressive cleaning material and method to clean the coping.

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There are a variety of commercial cleaners available to remove mortar smears and dirt without altering the finish or causing damage to the cast stone. Most contain detergents combined with mild solutions of phosphoric and/or muriatic acids. Use only the commercial cleaner developed for the specific stain to be removed.

Dirt can be removed with a mild detergent and thoroughly rinsing with water. Hardened mortar stains may require a more aggressive solution to remove.

For sealing, we recommend using a silane or silane/siloxane blend water repellent coating once installation is complete and after thoroughly cleaned of all mortar or mortar stains. It is important to follow the sealer / water repellent manufacturer's installation recommendations before applying to Namari coping.

Test on a small, inconspicuous area before applying to the entire surface area to ensure the sealer does not affect color or texture when dry.

## **CLEANING RECOMMENDATIONS POST-INSTALLATION**

If Namari is sealed at the time of installation, cleaning should be easier when the stone gets dirty. For regular cleaning, use water and a soft brush (if needed). Do not use a metal bristle brush, rubbing stones, or tools that can scratch the stone. In the event of an unusual stain, a cleaner meant to clean concrete will normally clean stains from Namari stone. The Portland Cement Association publishes a guide for the removal of stains in concrete. We recommend following cleaner's manufacturer's recommendations when using their product and to first test on an inconspicuous area of the stone before applying to the surface.

Over time, most stains (with the exception of mortar stains) will bleach in the sun – usually very quickly.

High power washing Namari works well if done correctly by an experienced professional. However, it is important the guidelines below are followed. Incorrect methods will cause streaking, lines, or surface damage. Damage caused from power washing is not covered by Namari's Limited Warranty under any circumstance.

High Pressure Guidelines:

- Water pressure should not exceed 3,000 psi
- Do not use Turbo Nozzles
- Do not use any power washer spray tip heads with angles less than 15 degrees

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- Keep the tip of the wand at least 18” above the surface of the stone
- Wash the surface of the stone in a consistent manner

## **DISCOLORATION**

Discoloration can occur due to difference circumstances, and most can be cleaned or will disappear over time. Some examples of discoloration are:

- **Moisture:** There may be variations in moisture on the stones from pool water, sprinklers, ground moisture, etc. This is no cause for alarm as the stones will dry and color will blend as the stones dry. However, if there is a continuous source of moisture that does not dry, please contact your pool builder as this may be an indication of other issues not related to the coping.  
If Namari darkens AFTER installation, it is likely moisture is migrating up through the stone. Moisture below or adjacent to the stone may migrate through the joints and / or surface of the stone. If the stone cannot dry due to a constant source of moisture, it will not return to its original color. This is not a problem with the stone and will dissipate once the water issue is eliminated and the stone is given ample time to dry.
- **Spilling / Staining from above (i.e. wine, mud, pet and plant droppings, etc.):** We recommend sealing the stones during installation as outlined above to provide stain protection. Organic stains such as dirt, etc. clean easier than others and can often be washed away with water. More difficult stains may require further effort with a cleaner meant to clean concrete as outlined in the Cleaning section of this document. Often, even the difficult stains will bleach with sunlight over time.
- **Mortar Smears:** Good housekeeping procedures during installation can prevent mortar stains. If mortar is not applied or cleaned properly from Namari, it will stain the coping. These stains are difficult to remove without damaging the stone. Detailed instructions for installing the stones to prevent smearing are included in this document.



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## **CHIPPING OF STONES**

Namari is a very durable stone product with a very high compressive strength (greater than 6500 psi). However, just like natural stone, chipping can occur if the stones are hit with a hard or sharp object. These chips can be patched with a Namari patch kit, please call your SCP or NPT Distributor to get a patch kit to match the color of your stone.

If you have further questions or need additional information or support, please contact your local NPT or SCP dealer or your WEK Representative and we will work with them to get your issue resolved.