ALLURA BACKERBOARD AND UNDERLAYMENT INSTALLATION

Allura backerboard and underlayment is manufactured in a multistep high-pressure process combining cement, silica and wood fiber, and with ASTM C 1288 and ASTM C 1185. The material also complies with ANSI 118.9 and ASTM E 84.

COMMON APPLICATIONS

Floor underlayment; Countertop bases; Tile backing

STORAGE AND HANDLING

- Veep backerboard products clean and protect them from direct exposure to the weather.
- Backerboard must be stored on a smooth, flat surface, not directly on the ground.
- Moisture- saturated fiber cement must not be installed. If saturated, let it dry before installation.

APPROVED MORTARS

- Setting Backerboard Standard dryset, latex or acrylic modified thinset.
- Setting Tile Latex or acrylic modified thinset or mastic.

JOINT TAPE

Use 2" wide, alkali resistant, fiberglass reinforcing tape.

FASTENERS

- Backerboard is best secured by hot-dipped galvanized roofing nails, sized to penetrate 1-1/2" into framing member.
- Floor applications must allow penetration to the full depth of the sub floor plus 1/8".
- Alternatively, minimum #9 x 1-1/4" cements screws may be installed with 1" embedment into studs and full penetration through subfloors.

CUTTING

- Score and Snap Score the face deeply (with a carbide tipped scoring tool) and snap upward against a straight edge. (For small holes, score the perimeter of the opening desired and knock out with a hammer.)
- Shears Use electric or pneumatic shears made for Fiber Cement material.
- Circular Saw Use a circular saw with a Fiber Cement PCD blade.
- It is a good practice and Allura strongly recommends that when cutting with a power saw, you use a dust collection device or vacuum system equipped with a HEPA filter.

TO MINIMIZE THE INHALATION OF DUST ALWAYS WEAR A RESPIRATOR (NIOSH-APPROVED N95) OR FITTED WITH A N, P OR R SERIES FILTER WHEN CUTTING AND DRILLING FIBER CEMENT.

AVOID BREATHING SILICA DUST

Allura® products contain respirable crystalline silica. Crystalline silica has been known to be a potential health danger for many years. This danger, however, can be mitigated with simple and effective precautions. The breathing in of small silica dust particles has been shown to cause lung cancer, silicosis, chronic obstructive pulmonary disease (COPD), and kidney disease. Silica dust is generated in Allura products when they are ground up or cut. When used under normal conditions, Allura products are not considered a cancer or other health risk, although breathing excess amounts of respirable silica dust can be a cause of cancer or other diseases. Cigarette or cigar smoking can increase these risks. OSHA has published a guidance document (OSHA 3362-05 2009) pertaining to Controlling Silica Exposures During Construction (the "Guidance Document"). Additionally, OSHA has adopted a regulation pertaining to airborne silica (the "Silica Rule"). The Silica Rule dealing with respirable crystalline silica is found at 29 CFR \$1926.1153.

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FLOORS

SUBFLOOR:

Make certain that the subfloor is structurally sound and that deflection in any direction will not exceed L/360. Ensure the subfloor is clean and flat. The framing must comply with all local building codes and ANSI 108.11.

- New Construction Use a minimum of 3/4" plywood over a maximum joist spacing of 16" o.c.
- Remodeling Remove all existing floor coverings prior to installation of Allura backerboard and replace any loose, damaged or warped subfloor. Use wood screws to tighten subfloor to joists where necessary.

LAYOUT:

Stagger all joints with subflooring. Do not align with plywood joints. Stagger all backerboard joints to avoid four corners meeting at any point. Leave 1/4" gaps at walls and cabinet bases for expansion joints. Do not fill these with mortar. In wet areas, a moisture barrier must be used to protect framing from moisture penetration.

FASTENING:

Always use high quality, hot-dipped galvanized or stainless-steel fasteners.

Apply a minimum of $3/32^{\circ}$ thick dryset to subfloor (modified thinset may be substituted), and seat boards to embed it evenly into the mortar. Leave $1/8^{\circ}$ gaps between board edges. Fasten 8° o.c. over the entire surface using (minimum) $1-1/2^{\circ}$ hot-dipped galvanized roofing nails or $#9 \times 1-1/4^{\circ}$ screws. Set the fastener heads flush with the surface of the board – do not overdrive. Keep fasteners a minimum of $3/8^{\circ}$ from panel edges and 2° from all corners.

COUNTERTOP INSTALLATIONS

CABINETS:

Shall be level and secured. A minimum of 1/2" plywood shall be securely fastened across the cabinet (more may be used to achieve desired counter height). Support spacing shall not exceed 16" o.c.

LAYOUT:

A single sheet shall be used to span across (front to back) the cabinet span. Stagger backerboard joints with plywood joints. All ends and edges of the board shall be fully supported by framing members. In the area around a sink, a moisture barrier, such as 4 mil polyethylene, is recommended to protect framing from moisture penetration.

FASTENING:

Apply a minimum of $3/32^{\circ}$ thick dryset or modified thinset to the plywood and seat board to embed it evenly into the thinset. Leave $1/8^{\circ}$ gaps between board edges. Fasten 8° o.c. over the entire surface using (minimum) $1-1/2^{\circ}$ hot-dipped galvanized roofing nails or $#9 \times 1\frac{14}{3}^{\circ}$ cement board screws. Set the nail/screw heads flush with the surface of the board – do not over-drive. Keep fasteners a minimum of $3/8^{\circ}$ from panel edges and 2° in from all corners.

WALL INSTALLATIONS

FRAMING:

Ensure the framing is sound. Walls shall be plumb to within 1/16" in 8' (use shims to correct). The framing must comply with the all local building codes and ANSI 108.11. Framing members shall be a minimum of nominal 2"x4" wood or 20-gauge galvanized metal studs. They must be straight, evenly aligned and spaced a maximum of 16" o.c. All corner framing in tub and shower enclosures must be braced.

LAYOUT:

In wet areas, a moisture barrier, such as 4 mil polyethylene, must be used to protect framing from moisture penetration. All panel edges must have vertical perimeter edge support on framing members. All horizontal and vertical edges shall maintain a minimum of 1/8" gap. Boards may be installed horizontally or vertically. Stagger all joints to avoid four panel corners meeting at any point. Pop-outs can be easily formed using the score and snap method. To achieve planar conditions when abutting to 1/2" drywall, use either 1/2" backerboard or shim the backerboard with

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1/4" furring strips secured to each stud. Expansion joints shall be used at all inside and outside corners, as well as every 12' of wall.

FINISHING WITH TILE

JOINT PREPARATION:

Joints shall be filled (except where corners meet – i.e., floor-wall, wall-ceiling, inside/outside corners) with the setting tile mortar. Bed minimum 2" wide alkali-resistant fiberglass tape into the wet mortar and level.

CERAMIC TILE:

All tile installation shall comply with ANSI A137.1 strength standards.

TILE SETTING:

Acrylic modified thinset is recommended for setting of ceramic tiles. Follow all mortar and tile manufacturer's written installation instructions and ANSI 108.4 and 108.5 standards. Wipe/mop surface with a wet cloth to remove any dirt and dust accumulated on the board immediately preceding application of tile mortar. Spread the mortar with the manufacturer-recommended notched trowel fitting the application (minimum 1/4" notch). Thinset shall be troweled in one direction (not swirled). Tiles shall be placed, twisted and pressed into wet mortar.

GROUTING:

A minimum of 24-hours curing time shall be allowed before grouting and/or walking on the installed tiles.