

## **FLOOR INSTALLATION & MAINTENANCE INSTRUCTIONS**

This Installation Instruction covers all Alumafloor Products manufactured by Alumafloor & More, Inc. All glue down installations require the use of APAC U989 One Part Urethane Adhesive.

### **STORAGE PRIOR TO INSTALLATION**

Flooring must be stored indoors. Never store flooring outdoors. The storage area within the building should be clean and dry. Temperature range: Same as floor usage. Alumafloor & More, Inc. cannot be responsible for damage to flooring caused by improper storage.

### **ACCLIMATION**

Temperature of material and adhesives should be acclimated to usage temperature 48 hours prior to installation. Material inspection, carefully remove panels from pallet, handle carefully as not to drag panels or edges against one another to prevent scratching.

### **TOOLS**

- Two carpenters saw horses with protective tops (to prevent marring to material finish).
- Six medium size carpenters ratchet clamps,
- Bosch #1587 AVS jigsaw (or equal) and Bosch T318B and T123X jigsaw blades,
- Circular electric hand saw / sliding compound miter saw / table saw with carbide tipped TCG non-ferrous saw blade for cutting aluminum (Such as Amana #575601 7" / 58T 5/8" bore non-ferrous circular saw blade or equal, Amana #510101 10"/100T 5/8" bore non-ferrous TCG grind or equal and Amana #512961 12"/ 96T 1" bore non-ferrous TCG grind or equal),
- V- notched trowels 1/8" x 1/8" for porous floor conditions and 3/32" x 3/32" for non-porous floor conditions,
- Full face safety shield,
- Safety glasses, Dust mask, Work gloves and a long sleeve shirt. (to protect installer from hot shavings generated from the cutting process),
- Metal straight edge, and basic floor covering installation tools, and
- Weights such as boxes of vct / sand bags / plastic glue pails or other cartons with non-metal surfaces which may scratch aluminum panels.

### **DIRECT GLUE BUTT JOINT INSTALLATION METHOD**

***Note: Install finished flooring from mixed panels throughout a skid of material. This will insure that a random distribution of the natural color variation that is an inherent characteristic of metal products.***

***To prevent damage, the flooring should be installed as the last step of the construction project.***

Aluminum tiles are manufactured in two seam options, Beveled Edges and Overlap Seam System, both require tight butt joints. Fit tiles tightly together.

## Preparation – All Subfloors

Alumafloor Flooring can be installed on, above, or below grade. Moisture test per ASTM F1869-98 specifications on concrete sub floor and ASTM standards meet for wood sub-flooring. Floors shall be smooth, rigid, flat, level, dry, clean and free of ridges, crowns, dips and all foreign materials.

Permanent HVAC must be in operation (2 weeks minimum) and permanent lighting must be provided prior to flooring installation. This is very important when performing any type of moisture test on a concrete slab. Job site temperature should be same as usage. **DO NOT** install flooring until all other significant construction work is complete.

Use of Portland cement-based filler to patch saw-cut control joints, cracks, holes, voids, low spots, depressions, grooves, indentations and defects of small areas. Fill level with the surrounding surface. Do not fill or bridge concrete slab expansion joints. These joints must be carried through the flooring surface using an expansion joint covering system. Sand and/or scour patched areas smooth after material is fully cured according to manufacturer's instructions. Use only quality materials and products which do not contain gypsum. Suggested patching products include: Ardex SD-P (used per Ardex guidelines).

Substrate must be clean, sound, and free of wax, dirt, dust, mold, mildew, loose material, grease, oil, coatings, paint, rust, cutback, old adhesives (carpet), weak powdery concrete, adhesive removers, gypsum-based materials, efflorescence (white soluble salt deposits on concrete surfaces) and other contaminants that will interfere with the bonding of the adhesive.

Verify that substrate is flat to within 1/8" in 10 ft. The substrate must be smooth, free from cracks, holes, voids, ridges, projections and other defects impairing performance or appearance.

## Preparation – Concrete Slabs

On-grade/Below-grade slabs: Sub slab moisture retarder - Minimum 10 mil (0.25mm) intact, polyethylene vapor retarding membrane beneath slab.

Alumafloor Flooring should not be installed on any concrete sub floor where there is hydrostatic pressure or standing water. If a sealer, curing compound, bond breaker, densifier / hardener, prior adhesive or other surface coating has been applied, it must be "ground" off. Whenever possible, grind a concrete sub floor to tolerance rather than fill. Scour all concrete surfaces that don't have a moisture retardant coating using 3 1/2 (20 grit) open coat sandpaper. Sweep and vacuum substrate after scouring or grinding. **DO NOT** use sweeping compounds as most contain oils or waxes which will interfere with the flooring adhesive bond. New slab cure minimum of 30 days is acceptable; a 60 day cure time is preferred. Structural Lightweight Concrete must have a compressive strength equal to or greater than 2000 P.S.I.. **DO NOT** use gypsum-based products. *Concrete must be clean, sound, free from contaminates and dry* regardless of concrete age, history or grade level.

## SELF-LEVELING UNDERLAYMENT'S

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Self-leveling compounds such as Ardex K 15 (per Ardex guidelines) can be used to level concrete slabs. Power Stretch, Inc cannot be responsible for strength, adhesion, or general performance of underlayments as proper compounding and preparation of subsurface are the responsibility of the installer.

If self-leveling underlayments are used, they must dry sufficiently (Run moisture tests) and dry hard (not dusty/powdery). Self-leveling underlayments must have a compressive strength equal to or greater than 2000 psi.

## **ACOUSTICAL UNDERLAYMENTS**

Glued Down Cork or Recycled Rubber not exceeding 3mm thickness provides a suitable underlayment for all Alumafloor Flooring. Glue down acoustical underlayment according to manufacturer's installation instructions.

If any Calcium Chloride test is equal/greater than 3 lbs. or any in-situ relative humidity test is equal/greater than 75%, then acoustical underlayment cannot be used. Cork/Rubber acoustical underlayment manufacturers require that concrete be less than 3 lbs. calcium chloride or less than 75% in-situ relative humidity.

## **RADIANT HEATED FLOORS (HYDRONIC)**

All concrete should be dry (Run moisture tests). System should be running for at least one week prior to flooring installation regardless of the season. Turn off radiant heat system 4 hours prior to starting installation. After installation is completed, immediately turn radiant heat system back on. Flooring and adhesive should never come in direct contact with heating tubes.

Maximum boiler temperature of 110 degrees F (43 degrees C).

Maximum slab/floor temperature of 85 degrees F (29 degrees C).

## **INCOMPATIBLE FLOOR COVERING SUBSTRATES**

### **DO NOT INSTALL ALUMAFLOOR PRODUCTS OVER THE FOLLOWING SUBSTRATES**

Particleboard, flakeboard, chipboard, OSB, waferboard, masonite, hardboard, and Meranti/Lauan are not approved structural substrates.

## **INSTALLATION GLUE DOWN U989 ADHESIVE**

Note: Prior to spreading urethane adhesive, it is mandatory to dry lay a portion of the initial and each course to verify proper layout and to visually inspect the flooring to ensure the best overall appearance. Verify that the flooring is the correct color, width, finish and quality (fit) prior to installation, usage constitutes acceptance. If there is any doubt, do not install the flooring. Contact Alumafloor & More, Inc. immediately. Alumafloor & More, Inc. cannot be responsible for installation of the wrong type of flooring or for installing obvious defects. In the production of Alumafloor some shading variations will appear.

Ashlar Pattern is recommended. An installer will average 15 to 20 square feet per hour. (Installations of point-to-point or other configurations or custom shapes will require additional time to maintain alignment)

Measure and mark your starting position. Dry lay area and make your cuts. If panels have cupping or crowning (common in machined aluminum) rotate panel for best alignment and apply weight until adhesive sets. Cut aluminum in area located away from installation. This helps prevent metal shavings created when cutting from being tracked onto aluminum panels. Cut Alumafloor from its underside when using an electric hand saw. This will prevent marring on the finished surface.

Clamp panel onto saw horse. Use straight edge as guide for the hand held circular saw (mask off or protect if cutting on the finished side of panel). Where necessary cut door casings to allow aluminum flooring to slide underneath. A 1/8" gap must be maintained around all walls and stationary vertical obstructions. (**DO NOT** tight cut panels to stationary objects). If Caulking is required use a color with a close match to the aluminum panel.

Spread adhesive using proper V-notched trowel, held at a 45 degree angle. Coverage will vary depending on substrate condition (smoothness, porosity, etc.) and job site temperature. Expected coverage is 70-80 sq. ft. /gal. Install flooring immediately. Do not allow adhesive to remain open to air more than 20 minutes. Install backing away from glued panels. Do not let adhesive dry to the touch. Occasionally lift a piece of flooring to

assure adhesive is achieving 90 -100% adhesive transfer. Spread adhesive only over surface that can be finished within cure time of adhesive. Complete a couple panels at a time by placing all pieces into fresh adhesive.

Apply conventional tile installation techniques - **DO NOT** use a roller. Install tile edge to tile edge and fit tiles tightly together. When setting a piece, lower the flooring into position directly next to the adjacent panel to limit adhesive bleed through. Begin the next course of panels and apply blue tape to help hold in position. Keep trowel clean when not in use. This will prevent cured adhesive from plugging trowel notches. If trowel notches become clogged with adhesive or become worn, clean to allow proper coverage or replace trowel blade.

**KEEP ALL FOOT TRAFFIC OFF FLOORING UNTIL ADHESIVE CURES FOR 8-10 HOURS.**

To keep Alumafloor flooring in place during installation, we suggest using removable weights such as vct boxes, plastic adhesive pails, etc., 3M #2080 Blue Adhesive Tape.

**WARNING!!!** Do not allow the 3M #2080 Blue Adhesive Tape to make contact with the flooring surface for any longer than 24 hours. Tape may leave a residue on the finish upon removal.

It is extremely important to immediately remove excess urethane adhesive while it is still fresh. Use U988 adhesive wipes and a clean, white, cotton cloth as the flooring is being installed. If solvents are used to facilitate partially cured mastic removal (under 24 hours), they must be wiped off surface promptly when mastic softens. Use approved solvents to remove partially cured adhesive.

**DO NOT** use acetone, ketones, ethyl acetate, methylene chloride, or lacquer thinners to remove mastic.

A stiff plastic putty knife may be helpful to remove large globs of glue. Cured adhesive (over 24 hours) is almost impossible to remove.

Flooring should be protected from traffic for 24 hours. Finished flooring must be protected from abuse by other trades. Use heavy kraft paper, cardboard, masonite board or equivalent. **DO NOT** use plastic or poly. Make sure the floor has been cleaned thoroughly (swept, vacuumed and dust mopped) prior to protecting, so that the flooring surface will not be scratched by debris. Avoid covering the installation with protective paper or equivalent for at least 24 hours. Some flooring material (attic stock) should be set aside in case future repairs are needed.

# ALUMAFLOOR

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**!!! INSTALLER GIVE THIS SHEET TO CUSTOMER !!!**

## **CLEAN-UP & MAINTENANCE**

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### **Guidelines**

Remove protective covering following completion of work by other trades. It is important to follow good housekeeping policies.

### **CAUTION!!!**

- Always use "WET FLOOR" signs and/or caution tape when performing any wet maintenance.
- Always refer to MSDS for use of PPE (Proper Protective Equipment)
- Floor Finish and Floor Strippers are **NOT** recommended on this floor.
- **DO NOT** use High Alkaline products on Alumafloor Products
- **DO NOT** use Blue, Black or Brown Pads on Alumafloor Products

### **Daily Maintenance**

Sweep and/or dust mop the floor daily to remove surface dirt and unwanted particles from scratching the flooring surface.

Damp mop or autoscrub using Johnson Wax Professional Stride Neutral Cleaner. Dilute products as recommended on label, use *red* pad only if using autoscrubber or 175-rpm single-disc machine.

*Note: If Disinfectant is needed, use Virex II 256 at recommended dilution rates.*

### **Deep Cleaning Procedure**

Sweep and/or dust mop the floor daily to remove surface dirt and unwanted particles from scratching the flooring surface. Thoroughly scrub using Stride Neutral Cleaner. Dilute products as recommended on label, use *red* pad only. This can be done with a 175-rpm swing machine or autoscrubber. **DO NOT** use blue, black or brown pads

Pick up soiled solution with wet/dry vac or auto scrubber. Rinse floor thoroughly and allow to dry completely.

### **Floor Protection**

Place mats or throw rugs at doorway exteriors, interiors & pivot areas to help prevent the tracking and grinding of grit, dirt, sand and moisture into the finish. Dirt can be ground into the floor surface and scratch the finish. Rugs and mats must be made of a breathable material and non-marking rubber to prevent moisture entrapment and finish discoloration. Remember to wipe up spills immediately.

Use fabric-faced glides or large (at least 2" in diameter), broad surfaced (at least ¾" in width), barrel-type, double wheel casters (non-marking rubber or polyurethane) on chairs and furniture legs to prevent scratching, scuffing and other damage. Keep glides and casters clean by inspecting regularly to prevent scratching. Replace fabric-faced glides as needed. When moving heavy furniture, equipment, etc., use roller casters and be sure to protect the aluminum flooring with heavy cloth or cardboard.