

DETAILED INSTALLATION INSTRUCTIONS FOR MECHANICAL METALS METAL WALL TILES

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INSTALLATION

MECHANICAL METALS WALL TILES AND TRIM: INSTALLATION, USE AND CARE INSTRUCTIONS

Mechanical Metals tiles are processed from sheet stock with great care. Surface markings and variations seen in the surface are inherent qualities of the process and add to the beauty and richness of the product.

A NOTE ABOUT THE TILE SURFACE

Mechanical Metals uses no clear coat on our standard line of tile. This enables the Stainless Steel Tiles to be vigorously cleaned without special care. Copper Tiles are processed with a grained or buffed finish on the surface. The surface is an orange-gold color, but it will rapidly oxidize creating a rich monochromatic patina. The original color can be maintained easily by applying copper cleaners or you may let the copper surface age naturally to a beautiful patina. Zinc Tiles processed with a mill finish can be easily grained for a desired finish, and they may be cleaned without special care. Patina Copper Tiles have a clear coat to protect the finish. Care should be taken when cleaning the surface.

INSTALLATION INSTRUCTIONS

- If you are using a Mechanical Metals expandable frame layout and start in the center of the frame, consult our Installation Bulletin No. 1.

Caulk-"Grouting" Methods

NOTE: Installations where maintenance requires any scouring or significant quantities of water or cleaners must include caulking or sealant between tiles. This action will prevent the maintenance liquids from affecting the adherence of the Metal Tiles to the substrate.

- For decorative or areas not requiring scouring to clean, no caulk-"grout" is required.
- For areas that require scouring but have no food contact, we recommend "Siliconized Acrylic Latex Caulk." This can be either sanded or non sanded.

1. Apply Siliconized Acrylic Latex Caulk with a Caulk-Gun, laying a bead in the "V" form between the tiles.
2. Tool immediately after sealant application.
3. Clean up uncured sealant inadvertently applied to tile surfaces immediately; in most cases use a tile sponge immediately to remove excess caulking material. Be very gentle with the tile sponge when using sanded caulk to avoid scratching the tile surface.

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4. If sealant sets up, it can be smoothed and removed from the tile surface using a fine grade scouring pad.

- For areas that require scouring that will have food contact, we recommend Dow Corning®748 RTV Sealant. Follow the manufacturer's instructions.
- DO NOT use abrasive cleaners, powders, heavy scouring pads, steel wool, sandpaper, etc. to remove grout haze or damage to the tile surface will result.

XT-2000 _____ **MASTIC ADHESIVE FOR METAL TILES**

PRODUCT DESCRIPTION: XT-2000 is a super-strong synthetic-latex based, mastic adhesive specifically formulated to provide a permanently flexible bond and high initial tack for adhering Metal Tiles.

USES: Used to install Exotic Metal Tiles over a multitude of substrates that include sealed drywall, plywood, particle board, concrete block and nonporous surfaces when special installation methods are used.

ADVANTAGES: Environmentally safe (0.00% Volatile Organic Compounds --"zero VOC"); tested in accordance with EPA Method #24, the only official test recognized by the EPA and all government agencies. Non-flammable, with no offensive odor. Easy to apply: one coat trowled onto wall surface is all that is needed. Allows Metal Tiles to be repositioned or realigned. Water-based for easy, water clean-up.

LIMITATIONS: Water-based adhesives cure slower than solvent materials. Should not be used when humidity exceeds 80% Not freeze-thaw stable in storage or transit.

Keep from freezing.

COMPOSITIONS AND MATERIALS: Synthetic latex dispersion. Contains surfactants, inert fillers, flame retarders and other compatible additives.

PACKAGING: Packaged in quart, one-gallon and five-gallon pails.

COLORS: White, dries clear.

ODOR: Minimal acrylic paint odor.

STORAGE LIFE: One year when stored in original, tightly sealed container.

Keep from freezing.

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TECHNICAL DATA _____

Base	Synthetic Latex
Solvents	Water
Solids	60-64%
Application Temperature Limits	60F to 80F
Flammability	Non-Flammable
Consistency	Medium Viscosity Paste
Application	1/8" V-Notched Trowel
Coverage	Approximately 120 Square Feet per Gallon Using Recommended Trowel
UL Listed	Meets/exceeds Class I/A fire code Requirements.
Volatile Organic Compounds(VOC)	Zero (0.00%) as tested to EPA Method #24

INSTALLATION: Surface Preparation: All surfaces must be clean and free of dust, grease, sealants and foreign matter. Porous substrates such as drywall and concrete block should be sealed by using Super-Tek Dry-Seal or equivalent.

MIXING: Use directly from container. Do not thin-out adhesive with water or solvents.

APPLICATION: Apply to wall surface using 1/8" deep sawtooth-V notched trowel. Be sure to cover 100% of the surface area. It is crucial that the adhesive, the Metal Tiles, the room, and the walls be at a controlled temperature of at least 60F for the entire period beginning 24 hours before application until 48 hours after the application has been completed. For further information see detailed instructions on package.

PRECAUTIONS: Synthetic latex can be irritating. Avoid contact with skin. In case of contact wash thoroughly with water. For eyes, get prompt medical attention. Provide adequate ventilation. Keep out of reach of children.

CLEANING: Wash Exotic Metal Tiles and tools immediately with water. Cured adhesive may be removed with ordinary paint remover (mineral spirits).

STORAGE LIFE: One year when stored in original, tightly sealed container. Keep from freezing.

MAINTENANCE: Adhesive: is permanent and maintenance-free. Adhesive must not be exposed to excessive moisture or cleaners when maintaining the tiles. (see caulkgROUTING method section above for prevention methods)

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Damaged Metal Tiles: may be replaced by mechanically removing cured adhesive. Re-apply adhesive and new Metal Tiles in normal manner.

INSTALLATION "DO'S" _____

1. DO make certain that porous substrates such as drywall and concrete block are painted or sealed using Super-Tek's Dry Seal before applying Exotic XT-2000 Adhesive. Newly sealed walls should be dry to the touch before installation of Metal Tiles. (See special instructions for installing over non-porous substrates.)
2. DO allow Metal Tiles material and the XT-2000 Adhesive to stabilize at room temperature (at least 60F) for 24 hours before installation.
3. DO be sure that the room temperature and humidity are controlled at the time of installation. The temperature should be between 60F and 80F and the relative humidity no more than 65%. These conditions must be maintained for at least 24 hours after installation, in order to allow the adhesive to cure properly.
4. DO wipe the surfaces of both the tile and the substrate with a damp cloth immediately before installation to remove any dust or foreign material.
5. DO apply XT-2000 Adhesive to the wall surface only. It is not necessary to apply adhesive to the tile.
6. DO spread the adhesive evenly with a notched trowel only, making certain to cover 100% of the surface area using a 1/8" deep V-notched trowel.
7. DO allow XT-2000 Adhesive to dry for approximately 20-30 minutes before installing tile. It is best to allow the adhesive to start becoming firm to the touch. This increases the initial tack. The use of electric fans is recommended to quicken drying.
8. DO immediately remove excess wet adhesive from tile with a damp cloth. Once adhesive has dried, mineral spirits are required for cleanup. Keep trowel grooves clean while working. Clean trowel frequently.

INSTALLATION "DON'TS" _____

1. Don't thin out XT-2000 Adhesive with water or solvents.
2. Don't apply adhesive with a roller or brush. Use the correct trowel and technique as described above.
3. Don't install Metal Tiles if the temperature and humidity are not controlled. The temperature must be between 60F and 80F and the humidity less than 65% for the period

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from 24 hours before installation until 24 hours after installation. The adhesive must remain in contact with the tile while it is curing. Significant temperature changes can cause the adhesive to shrink and lose contact.

IMPORTANT:

1. Using an insufficient amount of adhesive is the cause of most installation problems.

Using XT-2000 Adhesive Over Non-Porous Substrates

These instructions are for installing Metal Tiles over a non-porous substrate such as painted metal, stainless steel, high pressure laminate or other rigid plastic, glazed block, etc. Follow the instructions provided for installing Metal Tiles over wallboard and other porous substrates but make the following adjustments:

1. After applying the XT-2000 Adhesive to the non-porous substrate allow the adhesive to dry for a minimum of one hour, but no longer than three hours. XT-2000 is a water-based formulation and cures as the water evaporates or is absorbed by the substrate. Drying time will be affected by the relative humidity in the work area.
2. It is essential that the adhesive be firm to the touch and not transfer off the substrate onto one's fingers when touched before the tile can be applied.
3. The change in appearance of the adhesive from white to clear signifies the optimum time for adhering the tile. To decrease drying time in humid conditions increase air circulation with the use of electric fans.

The Proper Use of Wall Sealer/Primer Prior to Applying XT-2000 Adhesive

1. New drywall and drywall taping compound (joint compound) must be sealed before applying XT-2000 adhesive. This is necessary in order to control the rate of absorption of moisture from the water-based XT-2000 mastic adhesive. Also, if the drywall is not sealed, the paper may separate from the gypsum surface when adjusting the tile during installation.
2. Previously painted drywall and joint compound do not normally need to be sealed prior to applying XT-2000 adhesive unless they have been freshly painted with a polyvinyl acetate latex (PVAc) based paint or if there is new joint compound. Most new joint compounds, and many low-cost paints and sealants, are made with PVAc. This ingredient may react with the moisture in XT-2000, causing an unstable substrate to which the tile will not adhere.

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3. Surfaces which may contain PVAc compounds must be resealed or repainted with an acrylic latex or styrene-butadiene rubber latex (SBR) product, or some other latex based product that will not soften or re-emulsify and that the manufacturer warrants is compatible with water-based adhesives.
4. Super-Tek Products, Inc. manufactures a compatible sealer (Dry Seal) specifically engineered for applying Exotic XT-2000 Adhesive over new drywall and joint compound. Dry Seal will not soften, moisten, or re-emulsify. It also improves adhesion and provides a smooth dry surface ready for installation in less than 24 hours.

CUTTING AND MACHINING

Mechanical Metals tiles can be cut, however if cut you will lose the beveled edge. You can use tile spacers between the tiles to make the layout fill an appropriate size. Tile spacers come in sizes 1/16, 1/8, and 3/16 inch sizes. We recommend that you design your installation to avoid cutting tiles by using tile spacers or our frame and filler strips. (Contact the factory if you need help.) On large jobs, we will custom fabricate filler strips to fit your need.

Mechanical Metals tiles and trim are best cut using a bandsaw, or drill a 1/2" inch hole in the tile and use a jig saw.

- Other cutting tools include a bandsaw; a water jet; or punching.
- Tiles can be shaped with a belt or barrel sander.
- Edges can be finished with a metal file or sandpaper.
- Holes can be drilled using a high-speed drill or hole saw. Holes should only be drilled to allow penetrations such as for pipes or conduit, and never for fixturing or attachment.
- DO NOT use tile cutters designed to score and break tiles.

CARE AND MAINTENANCE

MECHANICAL METALS Inc. wall tiles and trim will easily maintain their rich appearance with simple routine care. Generally, cleaning with a damp cloth or sponge and solution of warm water and dishwashing detergent is sufficient.

- Stainless Steel may be cleaned using stainless steel cleaner, or may be aggressively cleaned using a scouring pad.
- Copper may be cleaned and or polished using any of the copper and brass cleaners commonly found in any hardware or food store.

Do Not use copper and brass cleaners on Zinc or Copper that has a patina finish—use only soap and water.