

## MICRO-THIN SLATE STONE VENEER INFORMATION SHEET

Micro-Thin Slate is a revolutionary, flexible stone veneer which can be applied over nearly any solid substrate including concrete, ceramic, wood, metal, plywood, fiberglass, backer board, tile, dry wall, painted surfaces, MDF, Masonite®, door skins and cabinetry. Micro-Thin Slate has been tested and developed as a beautifying stone covering veneer for use in many different environments, indoors or out. Micro-Thin Slate has proven to be a superb material when a real stone finish and texture is desired, but heavy solid stone may not be practical. Micro-Thin Slate is not recommended for commercial flooring or countertop applications.

### Composition

Micro-Thin Slate is natural stone veneer laminated to a fiberglass/polyester resin substrate.

### Installation

Installation of Micro-Thin Slate is quick, simple and easy. Simply apply the proper adhesive to the back of the Micro-Thin Slate sheet with the recommended 3/16" V-notched trowel and mount the sheet into place. Starting in the center of the sheet, using a roller or hand pressure, work any trapped air out towards the edge of the sheet. After adhesive has cured, you may finish the edges with any grout or trim pieces to match or accent the given decor.

### Flexibility

Micro-Thin Slate can be used in many of the same applications as other thin laminate products are used. It will bend to a minimum 8" radius depending on the stone color or type. With the assistance of heat, smaller radii can be achieved. Testing should always be done prior to any installation. Micro-Thin Slate can be bent inward or outward to meet a given look or architecture. Fiberglass strand is used in the makeup of Micro-Thin Slate, which gives it superior strength and flexibility.

### Sealers

It is best to pre-seal Micro-Thin Slate stone veneer sheets prior to installation. This protects and seals the face from adhesives and grout during installation and handling. Micro-Thin Slate can be sealed with the same sealers used for slate, stone tiles, and wood. There are many sealers on the market with various recommended applications. Please test any sealer for the desired luster and penetration prior to installation.

### Preparation

Before application it may be necessary to clean, brush, or degrease any surface of dust or oils. In some installations, depending on the adhesive used, it may be necessary to prep the back of the Micro-Thin Slate by sanding or scuffing. Some adhesives may require the use of solvents or recommended primer by the adhesive manufacturer.

### Layout & Patterns

Preparation of the area to be covered and the layout of the Micro-Thin Slate veneer sheets is the same as for natural stone or tile. Time spent preparing the work area will pay off immensely. A preliminary dry fit of Micro-Thin Slate allows for arrangements and orientation of individual sheets, patterns, textures, and colors before final placement. It is recommended that each sheet be dry fit exactly where it will be placed on horizontal or vertical surfaces. Numbering the sheets to track relocation before cutting and trimming is recommended and will save time.

### Cutting

Cutting straight lines and curves is best done using long nosed tin snips. Micro-Thin Slate can also be cut with a metal shear, wet saw, or table saw with carbide blade.

### Adhesives

It is important to know your adhesives; by understanding the specifics of the adhesive, a great deal of time and cost can be saved. All adhesives should be tested prior to any installation including consideration of moisture and temperature in the planned environment. If the application is outdoors, consideration to thermal expansion needs to be taken into account. Since Micro-Thin Slate is a veneer it must expand and contract with the substrate or delamination may occur. Where adhesive primers are recommended the bond should be tested by the installer before final installation.

The back of Micro-Thin Slate veneers may require a filler type adhesive for some applications. For wet environments epoxies, polyester resin and waterproof adhesives are the best candidate. Contact adhesives are not recommended due to the uneven backing of Micro-Thin Slate. Do not use non-catalyzing (water vapor type) cure adhesives where the substrate is a moisture barrier. Adhesive may not adhere properly if applied between non-porous materials.

### **Trowels**

A 3/16" V-notched trowel is recommended for best results. Use a straight trowel for back-filling of voids. Any bumps in the back surface should be sanded flat prior to back-filling. The back of Micro-Thin Slate may require a filler type adhesive to back-fill or level out voids of the natural stone. It is always best to back-fill or back-butter voids or depressions in the material before application to substrate.

### **Hand Rollers**

A hand roller is recommended to remove air between the Micro-Thin Slate stone veneer and substrate. To properly roll out trapped air, start in the middle of a sheet while firmly rolling to the edge. Do not press too hard while rolling as this may cause back-filled areas to push adhesive out and leave an air void. Proper back-filling and good rolling techniques will result in a solid, hard surface.

### **Tiling, Grouting & Joining**

Micro-Thin Slate can be used to create a tiled effect by leaving a grout joint between cut pieces. Sheets may also be butt-jointed for the look of a smaller seam. Due to the thin nature of Micro-Thin Slate a 1/8" to 1/4" grout joint will produce better results. Tests show the use of water-based epoxy and acrylic premixed grout work well to fill between the sheets. These grouts are available in several colors to match the existing decor. If desired, a deeper grout joint can be achieved by removing material just under the grout joint area with a grinding or scrapping tool. Modified grout and caulking grout can also be used.

### **Substrate**

In some indoor and most outdoor applications expansion and contraction must be equal to prevent delamination. A flexible adhesive may be considered in this case. Concrete and masonry substrates must be at least 28 days old. Hydrostatic pressure conditions and vapor transmission cannot exceed 3 lbs. per 1,000 sq. ft. (1,36 kg per 92,9 m<sup>2</sup>) per 24 hours using a calcium chloride test (reference ASTM F1869), and retained moisture should be less than 2.5%.

### **Variations**

Since Micro-Thin Slate is a natural stone veneer, color and texture variances are not defects within the material, but are inherent to it and part of the natural beauty of quarried materials. Micro-Thin Slate cannot be guaranteed to match dye-lot to dye-lot, so it is recommended that orders take into account future maintenance or re-fit possibilities.

### **UV & Temperature**

The stone surface of Micro-Thin Slate, like most stone elements, acts as a UV inhibitor and will resist high sun conditions for years. When adhered to a substrate, Micro-Thin Slate will handle thermal contraction and or expansion of most standard construction materials. Micro-Thin Slate will handle both high temperatures and freezing without cracking.

### **Precautions**

Precautions must be taken when working with Micro-Thin Slate due to the fiberglass composition of the backing materials. ALWAYS use the proper gloves, goggles, and dust mask when working with Micro-Thin Slate. Industry standards recommend a NIOSH/MSHA approved respirator for this type of material. When using a saw ALWAYS be sure to take proper precautions to cover skin and eyes from fiberglass dust. When cutting Micro-Thin Slate with saws, grinders, or sanders ALWAYS properly filter and exhaust equipment.

### **Safety**

AVOID BREATHING SILICA DUST. This product when cut, drilled, or abraded produces dust containing Free Silica which may cause cancer or delayed lung injury (Silicosis) if inhaled. Work outdoors, in a well ventilated area, or use mechanical ventilation. Please wear safety glasses and a dust mask. If working in dusty areas or where airborne dust exceeds PEL

wear NIOSH/MSHA approved respirators. This product contains one or more chemicals known to the State of California to cause cancer.

#### Technical analysis

Test Method: US Code of Federal Regulations Part 1500.44, Title 16

Flammability test on rigid and pliable solids:	Pass
Sample	Burning Rate (inch/sec)
Polyester Resin Based Metalized Panel	0.004

\*A sample is considered to have passed the test if the burning rate is not more than 0.10 inch per second.

Test Method: As specified in AOAC 16th Ed. Section 973.32 & 973.82. Polyester resin-based metalized panel/bowl

#### Lead & Cadmium content in earthenware quantitation by AAS: PASS

SGS Laboratory No.	Extract, Volume (l)	Lead, ppm (mg/L)	Cadmium, ppm (mg/L)
14324	2.0	<1.0	<0.25
14324	2.0	<1.0	<0.25
14324	2.0	<1.0	<0.25
14324	2.0	<1.0	<0.25
14324	2.0	<1.0	<0.25
14324	2.0	<1.0	<0.25
Limit for FDA (any one of six)		1.0 ppm	0.25

Notes: 1) < = less than

2) mg/L = milligrams per liter

3) ppm = parts per million

4) AAS = Atomis Absorption Spectrophotometer

Conclusion: The client submitted samples described above comply with the leachable lead and cadmium requirements of the American Food and Drug Administration (FDA).

Test Method: Nitric Acid digestion and analyzed by Atomic Absorption Spectrophotometer.

Test Sample: 04249 Stone/Slate on Resin 12 x 12 tile size 6x.

To determine the soluble Heavy Metal contents in accordance with the European Standard EN 71 part 3.1994 + A1:2000 – Migration of certain elements.

Migration of Certain Elements	04249	Limit
Soluble Lead (Pb), mg/kg	12.7	90 mg/kg
Soluble Antimony (Sb), mg/kg	<5	60 mg/kg
Soluble Arsenic (As), mg/kg	0.2	25 mg/kg
Soluble Barium (Ba), mg/kg	<0.5	1000 mg/kg
Soluble Cadmium (Cd), mg/kg	<0.5	75 mg/kg
Soluble Chromium (Cr), mg/kg	7.5	60 mg/kg
Soluble Mercury (Hg), mg/kg	<0.5	60 mg/kg
Soluble Selenium (Se), mg/kg	<0.5	500 mg/kg
Methodology: with reference to EN 71 Part 3.1994 +A1:2000 by inductively coupled argon plasma (ICP-OES)		
Analysis	04249	
Lead (Pb), ppm	ND (None detected) detection limit for Pb is 5.0 ppm	

#### The Micro-Thin Slate Stone Veneer Limited Warranty

Micro-Thin Slate Stone Veneer products are warranted to be free from defects in materials and workmanship. Any such defects must be reported to Interlam within ten (10) days of date of delivery. During this warranty period, we will repair, or at our option, replace free of charge, such merchandise as shall prove to be defective. THIS WARRANTY DOES NOT APPLY TO DAMAGE RESULTING FROM ACCIDENT, ALTERATION, MISUSE, TAMPERING, NEGLIGENCE, OR ABUSE. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY DISCLAIMED. ALL OTHER WARRANTIES (INCLUDING ANY WARRANTY OF MERCHANTABILITY OF FITNESS FOR ANY PARTICULAR PURPOSE) ARE HEREBY EXCLUDED. THE FOREGOING SHALL CONSTITUTE THE SOLE REMEDY OF THE CUSTOMER.

Concrete and masonry substrates must be at least 28 days old. Hydrostatic pressure conditions and vapor transmission cannot exceed 3 lbs. per 1,000 sq. ft. (1,36 kg per 92,9 m<sup>2</sup>) per 24 hours using a calcium chloride test (reference ASTM). NOTICE: Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.



Tools



Sanding



Cutting



Adhesive Application



Back Fill and Trowel



Wide Roller



Grout



Finished Product