

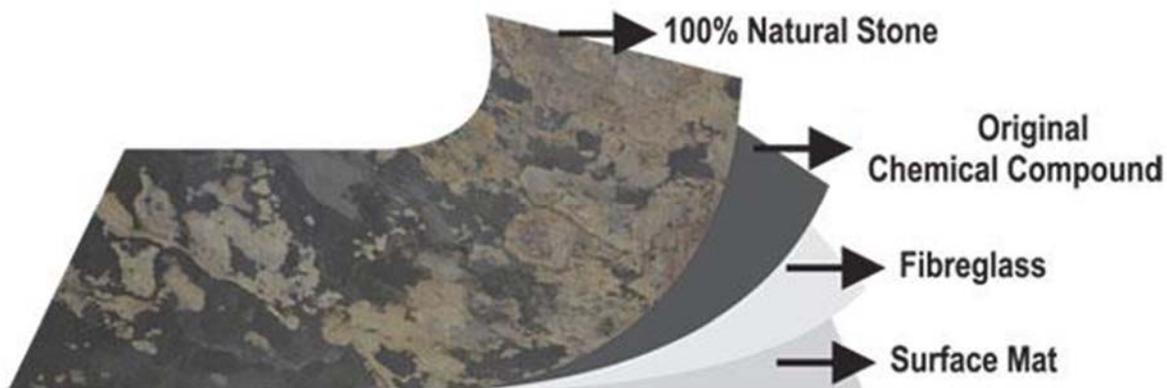
VersaLite Stone® Veneer

TECHNICAL DATA SHEET AND SAFETY DATA SHEET

VersaLite Stone® Veneer 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. **VersaLite Stone® Veneer** has been tested and developed as a beautifying stone covering veneer for use in many different environments, indoors or outdoors. **VersaLite Stone® Veneer** has proven to be a superb material when a real stone finish and texture is desired, but heavy solid stone may not be practical. **VersaLite Stone® Veneer** is not recommended for commercial flooring.

VersaLite Stone® Veneer COLLECTION: Indian Autumn, Autumn Rustic, Copper, Multi-Color, Black Line, Silver Shine, Silver Shine Gold, California Gold, Gold Green, Black Star, Silver, and Ocean Green.

Above mentioned **VersaLite Stone® Veneer** is available in 2' x 4' which is our standard size and can go up to 4' x 8'. Important: Sizes can be produced as per customers requirements also.





Composition

VersaLite Stone® Veneer is natural stone veneer laminated to a fiberglass/polyester resin substrate.

Installation

Installation of **VersaLite Stone® Veneer** is quick, simple and easy. Simply apply the proper adhesive to the back of the **VersaLite Stone® Veneer** sheet with the proper sized trowel for the substrate being. 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

VersaLite Stone® Veneer 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 colour or type. With the assistance of heat, smaller radius can be achieved. Testing should always be done prior to any installation. **VersaLite Stone® Veneer** can be bent inward or outward to meet a given look or architecture. Fiberglass strand is used in the makeup of **VersaLite Stone® Veneer**, which gives it superior strength and flexibility.

Sealers

VersaLite Stone® Veneer requires sealers for stain and scratch protection. The sealers recommended are listed on this document. It is best to pre-seal **VersaLite Stone® Veneer** sheets prior to installation. This protects and seals the face from adhesives and grout during installation and handling.

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 **VersaLite Stone® Veneer** by sanding or scuffing.

Layout & Patterns

Preparation of the area to be covered and the layout of the **VersaLite Stone® 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 **VersaLite Stone® Veneer** allows for arrangements and orientation of individual sheets, patterns, textures, and colours 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. **VersaLite Stone® Veneer** can also be cut with a metal shear, wet saw, or table saw with carbide blade.



Adhesives

It is important to follow exact guidelines for the chosen adhesive; by understanding the specifics of the adhesive, a great deal of time and cost can be saved. All adhesives should be selected prior to the installation taking into account important factors such as moisture and temperature in the planned environment. If the application is outdoors, consideration to thermal expansion needs to be taken into account. Since **VersaLite Stone® Veneer** is a veneer it must expand and contract with the substrate or delamination may occur.

The back of **VersaLite Stone® Veneer** may require “Back-Buttering” of adhesive for some applications. For wet environments, epoxy adhesives are required. Contact adhesives are not recommended due to the uneven backing of **VersaLite Stone® Veneer**. 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.

Recommended Adhesives (i.e. USA)

Adhesive Legend for VersaLite Stone® Installations									
	Drywall	Painted Surfaces	MDF	Doors and Cabinetry	Concrete and Backerboard	Ceramic	Wood	Metal	Fiberglass
Interior	Q/X/L	Q/X/L	Q/X/L	Q/X/L	Q/X/L	X/L	Q/X/L	Q/X/L	X/L
Exterior	N/A	Q/X/L	N/A	Q/X/L	Q/X/L	X/L	Q/X/L	L	L
Wet Areas	N/A	N/A	N/A	N/A	X/L	X/L	N/A	L	L
Grouting	C/X/S	C/X/S	C/X/S	C/X/S	X/S	X/S	X/S	X/S	X/S

Q = Quick Grip Construction Adhesive Red Devil #0696
 X = X90 Epoxy Litokol
 L = Litoelastic Epoxy Polyurethane Litokol
 C = Sanded Caulking
 S = Starlike Grout Litokol
 N/A = Not Applicable or Not Recommended

Sealers for **VersaLite Stone® Veneer**

Tile Doctor Advanced Hybrid Sealer, Penetrating sealer no-gloss
Tile Doctor Advanced Green Enhance and Protect, Semi- gloss enhancer

Cleaners

Tile Doctor Advance Tile and Stone Cleaner, PH neutral Cleaner Concentrate

Go to www.TileDoctor.com for more information on Sealers, Grouts and Adhesives



VersaLite Stone® Veneer on concrete or mortar cement plastered wall or Gypsumboard Exterior or interior when using grout joints: STARLIKE® or X90 Epoxy based grout is recommended.

We strongly recommend to seal the stones surface with the recommended sealers before installation.

Tools to work with

VersaLite Stone® Veneer can be worked with any commercially available tools (DIY tools). Sawing, drilling, milling, cutting, bending, pressing. For industrial processing we recommend using diamond blade tools due to strong wear on wood blades.

Hand Rollers

A hand roller is recommended to remove air between the **VersaLite Stone® Veneer** sheet 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

VersaLite Stone® Veneer 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 **VersaLite Stone® Veneer** 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.

Pressing

VersaLite Stone® Veneer has a natural, split rough surface with a tolerance up to 2 mm. While being applied and during adhesive setting times, you can address thickness variations by applying pressure, tape and or weights to areas to keep stone in firm contact during adhesive drying.

Substrate

VersaLite Stone® Veneer can be applied to MDF, HDF boards, Styro-Foam sheets, melamine, brick, concrete blocks & slabs, mortar plastered walls, drywall, plywood, acrylic or other plastic sheets. 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 m²) per 24 hours using a calcium chloride test (reference ASTM F1869), and retained moisture should be less than 2.5%.



Variations

Since **VersaLite Stone® Veneer** is a natural product *DESIGNED BY NATURE*, colour and texture variances are not defects within the material, but are inherent to it and part of the natural beauty of quarried materials.

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 **VersaLite Stone® Veneer**, like most stone elements, acts as a UV inhibitor and will resist high sun conditions for years. When adhered to a substrate, **VersaLite Stone® Veneer** will handle thermal contraction and or expansion of most standard construction materials.

VersaLite Stone® Veneer will handle both, - high temperatures and freezing without cracking.

Storage

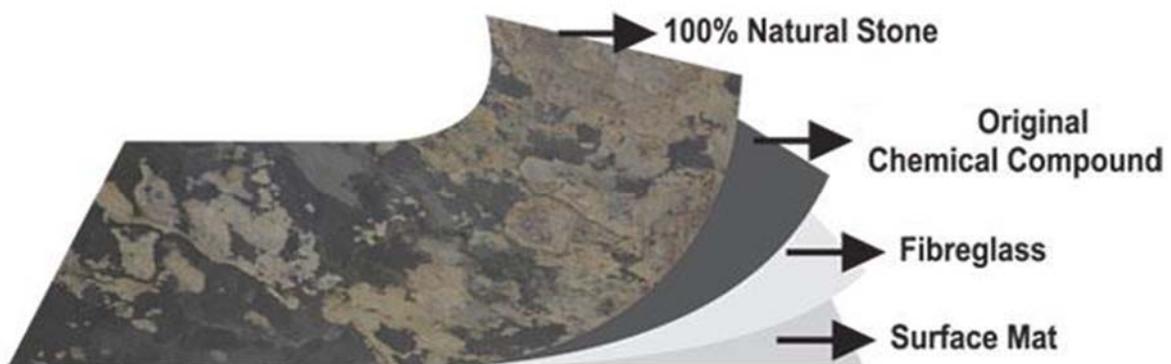
The storage of unsealed **VersaLite Stone® Veneer** material must be dry, preferably frost-free and sun Protected. Protect against climatic influences.

Precautions

Precautions must be taken when working with **VersaLite Stone® Veneer** due to the fiberglass composition of the backing materials. ALWAYS use the proper gloves, goggles, and dust mask when working with **VersaLite Stone® Veneer**. 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 **VersaLite Stone® Veneer** with saws, grinders, or sanders, ALWAYS properly filter and exhaust equipment.

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.

VersaLite Stone® Veneer technical analysis





Test method: US code of federal regulations Part. 1500.44, Titel 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 a 0.10 inch per Second.

Test method: As specified in AOAC 16th Ed. Section 973.32 & 973.82

Polyester resin-based- metallized panel / bowl

Lead and Cadmium content in earthenware quantilation 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 litter
- 3. ppm = parts per million

AAS = ATOMIC ABSORPTION SPECTROPHOMETER

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 6x12

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

VersaLite Stone® details

S.No.	MATERIAL compound/ ingredients	Quantity Kg./Sqm.
1	Processing Material	1.300 -1.500
2	Backing Material	0.150 – 0.200
3	Natural Stone	0.100 – 0.200
	Total Weight per sqm.	1.550-1.900

THICKNESS OF MATERIAL PARTICULARS		in MM
4	Thickness of natural stone layer	0.50-0.60
5	Thickness of other chemicals backing	1.00-1.40
6	Total thickness	1.50-2.00



	Test conducted at testing laboratory which is ISO 9001:2000 approved internationally	TEST VALUE		PROTOCOL
		SLATE	QUARZITE	
7	Waterabsorption in % by wt	2.50	1.90	ASTM C-121 guidelines
8	Waterabsorption in % Test carried out on thin slate specimen pasted on marble piece	0.17	0.12	ASTM C-97 guidelines
9	Abrasion Test Average wear, mm Max wear on individual specimen, mm	0.70 0.80	0.90 1.00	IS: 9162-1979 guidelines
10	DENSITY (mass per unit area Kg /m2)	1.45	1.66	IS: 12866-1989 guidelines

The Limited Warranty

VersaLite Stone® Veneer products are warranted to be free from defects in materials and workmanship. Any such defects must be reported 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 m2) 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 SHOULD HAVE BEEN DISCOVERED.

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