

PRODUCT INFORMATION/ TECHNICAL DATASHEET

VersaLite Stone® Veneer

VersaLite Stone® Veneer is real stone laminated to a flexible backing that allows versatile and unique applications. Apply over nearly any solid substrate including concrete, ceramic, wood, metal, plywood, fiberglass, backer board, tile, drywall, many 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, can be used indoors or outdoors. **VersaLite Stone® Veneer** has proven to be a superb material when a real stone finish and texture is desired but a heavy solid stone may not be practical. **VersaLite Stone® Veneer** is only recommended for light use residential flooring where abrasion will not happen.

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

VersaLite Stone® Veneer is stocked in 2' x 4' and 4' x 8'.

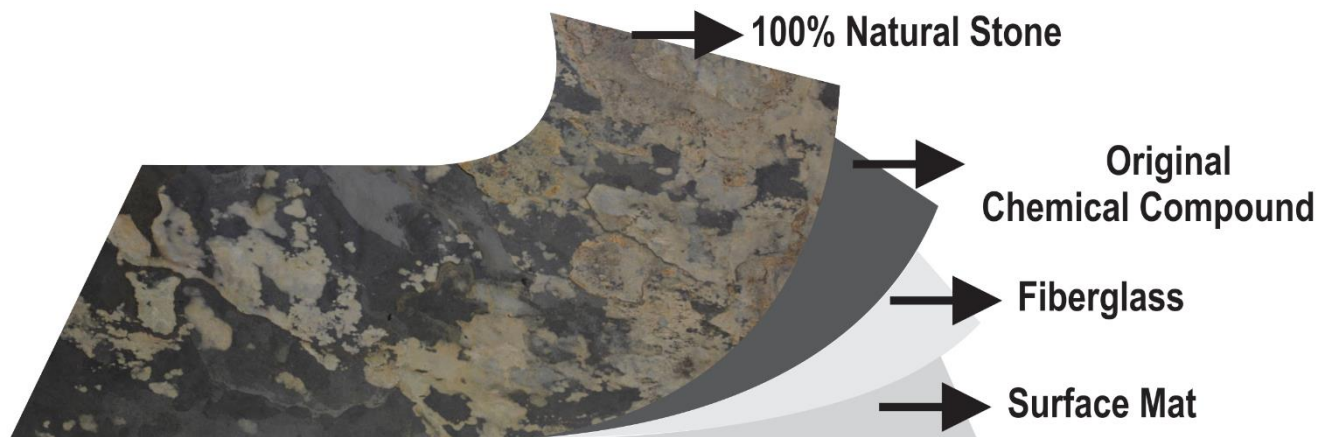
Sizes can be produced as per customers requirements also.

THICKNESS:

2.0 - 3.0mm (depending upon the stone).

WEIGHT:

1500-2000 grams per square meter or .30 -.40 lbs. SF (depending upon the stone).



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 and mount the sheet in 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:

VersaLite Stone® Veneer can be used in many of the same applications as other thin laminate products are used. It will bend to a small radius depending on the stone color or type. With the assistance of heat, smaller radius can sometimes 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 sealing 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 scuffing, adhesives and grout during installation and handling.

PREPERATION:

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. Follow the instructions for each adhesive on the label of the product, or the technical sheet that applies to each.

LAYOUTS & 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 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 can 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.

Adhesives for VersaLite Stone® Veneer Installations									
	Drywall	Painted Surfaces	MDF	Doors and Cabinetry	Concrete and Backerboard	Ceramic	Wood	Metal	Fiberglass
Interior	Q/K/X/L	Q/K/X/L	Q/X/L	Q/X/L	Q/K/X/L	K/X/L	Q/X/L	Q/X/L	X/L
Exterior	N-A	X/L	N-A	X/L	X/L	X/L	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 = Construction Adhesive: Boss 635 Contact Adhesive (Spray) or Boss 165 Multi-Seal* (Cartridge) (*one surface must be porous)									
K = K100 Hyperflex Litokol									
X = X90 Epoxy Litokol									
L = Litoelastic Epoxy/Polyurethane Litokol									
C = Sanded Caulking Interior only									
S = Starlike Grout Litokol									
N-A = Not Applicable or Not Recommended									

Sealers for Versalite Stone Veneer
Solvent Based Sealer for Large Projects
Premium Water Based Sealer
Penetrating Sealer No-Gloss
Semi-Gloss Enhancer
Cleaners
Tile & Stone Cleaner, PH Neutral Cleaner Concentrate

TOOLS TO WORK WITH:

VersaLite Stone® Veneer can be worked with any commercially available 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. **When using grout joints**, STARLIKE® or X90 Epoxy based adhesive that will also serve as the grout is recommended. The adhesive will become the grout joint material when flattened out where joints will be prior to placement of stone sheets. We strongly recommend to seal the stones surface with the recommended sealers before installation. Modified grout and caulking grout can also be used to grout the joints after adhesive set.

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*, color and texture variances are not defects within the material, but are inherent to it and part of the natural beauty of quarried materials. These 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.

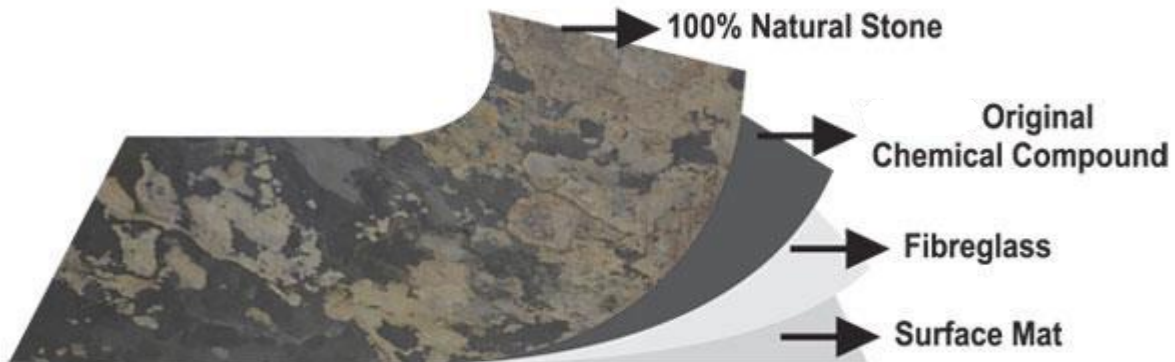
DISPOSAL CONSIDERATIONS:

Product can be deposited with normal waste according to local restrictions.

TRANSPORTATION:

Sheets are packed into wooden pallet or box and can be transported by LTL, Air or Sea.

VersaLite Stone® Veneer 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 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 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 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® Veneer 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		PROTOCOLL
		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