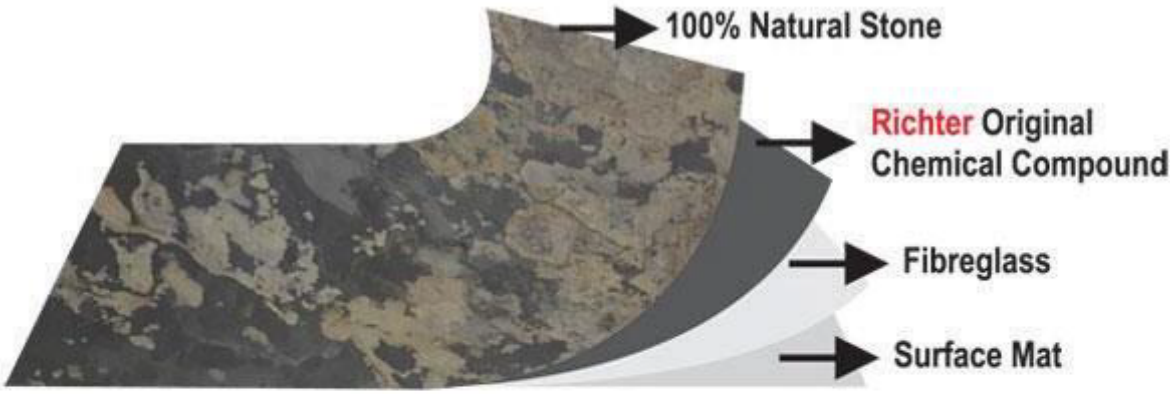
MSDS - MARMOX® STONE-VENEER SHEETS

Date of issue: 04.04.2024

Stone-Veneer can be applied over nearly any solid substrate including concrete, ceramic, wood, metal, plywood, fibreglass, backer board, tile, dry wall, painted surfaces, MDF, Masonite®, door skins and cabinetry. Stone-Veneer has been tested and developed as a beautifying stone covering veneer for use in many different environments, indoors or outdoors. 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. Stone Veneer is not recommended for commercial flooring.

Stone-Veneer COLLECTION: Indian Autumn, Autumn Rustic, Autumn White, Terra Red, Copper, Multicolour, Auburn, Mongolian, Black Line, Silver Shine, Silver Grey, Multi Pink, Black Slate, Forest, Jeera Green, Gold Green, Black Star, Tan

Above mentioned Stone-Veneer is available in 1220 x 610 mm which is our standard size and can go upto 2800 x 1250 mm. Important: Sizes can be produced as per customers requirements also.



1. Composition

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

2. Installation

Installation of Stone-Veneer is quick, simple and easy. Simply apply the proper adhesive to the back of the Stone-Veneer 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.

3. Flexibility

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

4. Sealers & Impregnators

All Stone-Veneer need sealers and impregnators for stain and scratch protection. The sealers and impregnators available in the market are polyurethane matt and glossy, waterbased sealers and impregnators, solvent based sealers and impregnators. All these sealers are similar to the ones used in stone industry.

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

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 Stone Veneer by sanding or scuffing. Some adhesives may require the use of solvents or recommended primer by the adhesive manufacturer.

Preparation of the area to be covered and the layout of the 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 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 straight lines and curves is best done using long nosed tin snips. Stone-Veneer can also be cut with a metal shear, wet saw, or table saw with carbide blade.

5. 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 Stone-Veneer 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 Stone-Veneer veneers may require a filler type adhesive for some applications. For wet environments, epoxies, polyester resin and water proof adhesives are the best candidate. Contact adhesives are not recommended due to the uneven backing of 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.

6. Tools to work with

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.

7.Hand Rollers

A hand roller is recommended to remove air between the 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.

8. Tiling, Grouting & Joining

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 Stone-Veneer a 1/8” to ¼” grout joint will produce better results. Tests show the use of water based epoxy and acrylic premixedgrout work well to fill between the sheets. These grouts are available in several colours 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.

9. Pressing

Stone-Veneer has a natural, split rough surface with a tolerance up to 2 mm. Thickness equalizing additions protect the surface from being damaged. Proven are 7mm thick rubber plates with a shore grade of 50 and a temperature resistance of at least +80°. It’s important that the rubber mate has a ensulating effect, so that the press time can be therefore extended. Pending to the adhesive type and press temperature of +80°, press time approximately 6 minutes. Depending on the press configuration, the pressure has to be carefully set.

10. Substrate

Stone-Veneer can be applied to MDF, HDF boards, Styro Foam sheets, melamine, brick, concrete blocks & slabs, mortar plasetered 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%.

11. Variations

Since 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.

For furniture industries and those companies that require a certain homogeneity in structure and colour of the natural stone surface, we offer to exchange reference sheets in order to guarantee the highest similarity.

12.UV & Temperature

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

13. Storage

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

14. Precautions

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

15. 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.

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 (||)	Lead, ppm (mg/L)	Cadmium, ppm (mg/L)
14324	2.0	<1.0	<0.25
14324	2.0	<1.0	<0.25
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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 then
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.

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STONE-VENEER TECHNICAL ANALYSIS

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

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

S.No.	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

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STONE-VENEER DETAILS

S.No.	Test conducted at testing laboratory which is ISO 9001:2000 approved internationally	TEST VALUE		PROTOCOLL
		SLATE	QUARZITE	
1	Waterabsorption in % by wt	2.50	1.90	ASTM C-121 guidelines
2	Waterabsorption in % Test carried out on thin slate specimen pasted on marble piece	0.17	0.12	ASTM C-97 guidelines
3	Abrasion Test Average wear, mm Max wear on individual specimen, mm	0.70 0.80	0.90 1.00	IS: 9162-1979 guidelines
	DENSITY (mass per unit area Kg /m2)	1.45	1.66	IS: 12866-1989 guidelines

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.