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 then 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 quantilation by AAS: PASS

SGS LABORATORY NO.	EXTRACT, VOLUME (II)	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

1. <= less then 2. mg / L = milligrams per litter 3. ppm = parts per million AAS = ATOMIC ABSORPTION SOECTROPHOMETER

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 12×12 tile size 6 x 12

To determine the soluble Heave Metal contents in accordance with the European Standard EN 71 part 3.1994+

A1:2000 - Migration of certain elements

Migration of Certain Element:	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

DATA SHEET FOR THIN STONE VENEER

S:NO	MATERIAL	QUANTITY Kg./Sq.Mtr
1.	PROCESSING MATERIAL	1.300
2.	BACKING MATERIAL	0.150
3.	NATURAL STONE	0.100
	TOTAL WEIGHT PER SQ. MTR.	1.500 - 1.600
S:NO	**THICKNESS OF MATERIAL PARTICULARS**	**IN MM**
4.	THICKNESS OF NATURAL STONE LAYER	0.40 mm
5.	THICKNESS OF OTHER CHEMICALS BACKING	0.80 mm
6.	TOTAL THICKNESS OF THIN SLATE STONE VANEER SHEET	1.20 mm - 1.50 mm

S:NO	TESTS CONDUCTED AT TESTING LABORATORY IN INDIA WHICH IS ISO 90001:2000 APPROVED INTERNATIONALLY	TEST VALUE		PROTOCOL
		Slate	Micra	
7.	WATER ABSORBTION % BY WT. (TEST CARRIED OUT ON THIN SLATE STONE SPECIMEN)	2.50	1.90	ASTM C - 121 guidlines

8.	WATER ABSORBTION % WT. (TEST CARRIED OUT ON THIN SLATE SPECIMEN pasted on marble pıece)	0.17	0.12	ASTM C - 97 guidlines
9.	ABRASION TEST (AVERAGE WEAR, MM MAX WEAR ON INDIVIDUAL SPECIMEN MM)	0.07 0.08	0.09 1.0	IS:9162 - 1979 guidelines
10.	DENSITY (MASS PER UNIT AREA, KG/M2)	1.45	1.66	IS: 12866 - 1989 guidelines

MATERIAL SAFETY DATA SHEET OF FABRIC BACKING STONE VENEER ALONG WITH MAJOR CONSTITUENTS

MAJOR CONSTITUENTS OF FABRIC BACKING STONE VENEER

1.SLATE

Properties of Slate:
It is a metamorphosed rock of shale's showing luster. Compactness and tension. It can be scratched by a copper coin or a key. The streak is generally whitish grey. The main properties of a slate are as follows:

- Strength

(i) Transverse Strength- This property indicates the capacity of resistance to damage in handling to bear upon slates in their actual use. Rather than those of tension and compression. This is expressed as

$R = 1.5\ WL/bd^2$

Where R = modulus of rupture in kg/cm2.
W = breaking load in kg.
L = length of span between supporting steel bearing in cm.
b = width of specimen in cm. and
d = thickness of specimen in cm.

TABLE 2
Physlco - Mechanical Properties of Different Varieties of Slate Quarried in India, Bhutan, the United Kingdom and the United States of America

Properties	unit	Indian	India			*Bhutan*	U.K.	U.S.A.	
		Std.IS: 6250-1971	Dharm sala	Khund	Kurnool	Bonsegcoma	South Wales	Eastern New York	Pennsy lvanta
Specific Gravity		-	2.706	2.782	2.784	2.765	2.766	2.783	2.764
Transverse Strength	kg/cm2	600	489.85	547	861.7	884.30	861.87	–	844.65
Shear Strength	kg/cm2	-	172.44	231.63	239.58	216.10	210.61	–	223.97
Water Absorption	%	0.2	0.10	0.09	0.08	0.10	0.07	0.098	–
Corrodibility	%	-	0.60	0.42	0.40	0.52	0.60	–	0.49

2. COTTON FABRIC

PROPERTIES OF COTTON FIBER
(COTTON FABRIC IS MADE FROM COTTON FIBER)

Property	Evaluation
Shape	Fairly uniform in width, 12–20 micrometers; length varies from 1 cm to 6 cm (½ to 2½ inches); typical length is 2.2 cm to 3.3 cm (⅞ to 1¼ inches).
Luster	high
Tenacity (strength) Dry Wet	 3.0–5.0 g/d 3.3–6.0 g/d

Resiliency	low
Density	1.54–1.56 g/cm³
Moisture absorption raw: conditioned saturation mercerized: conditioned saturation	 8.5% 15–25% 8.5–10.3% 15–27%+
Dimensional stability	good
Resistance to acids alkali organic solvents sunlight microorganisms insects	 damage, weaken fibers resistant; no harmful effects high resistance to most Prolonged exposure weakens fibers. Mildew and rot-producing bacteria damage fibers. Silverfish damage fibers.
Thermal reactions to heat to flame	 Decomposes after prolonged exposure to temperatures of 150˚C or over. Burns readily.

Cotton fibers viewed under a scanning electron microscope

The chemical composition of cotton is as follows:

- FABRIC 91.00%
- water 7.85%
- protoplasm, pectins 0.55%
- waxes, fatty substances 0.40%
- mineral salts 0.20%

3. PVA GLUE

Technical Specification

It is PVA based revolutionary water resistant wood adhesive with excellent bonding strength made as per European EN 204/205 D3 standards.

S. No.	Test	Unit	Test Method	Results
1	COLOUR	-	VISUAL	MILKY WHITE
2	APPEARANCE	-	VISUAL	VISCOUS PASTE
3	BROOKFIELD VISCOSITY @ 30C (SPINDLE NO.6/20RPM)	cps	BROOKFIELD, RVDVI+	9000 ± 3000
4	SOLID CONTENT @ 105 C till constant Weight	%	Oven	52 ± 1
5	pH VALUE		BY DIGITAL PH METER	4 + 0.3

The above information is based on the present state of our knowledge and experience. The statements mentioned herein should be considered as information without obligation. For applications, users should make their own assessment of our product under their own conditions according to final requirements. If local regulations exist, they should be applied

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S. No.	MATERIAL COMPOSITION OF STONE VENEER	QUANTITY Kg./Sq. Mtr.

1.	Processing Material			0.550
2.	Backing material			0.150
3.	Natural Stone			0.100
	TOTAL WEIGHT PER SQ. MTR.			**0.800 - 1.000**
	THICKNESS OF LAYERS OF STONE VENEER			
	PARTICULARS			**IN MM**
4.	Thickness of Natural Stone Layer			**0.20mm**
5.	Thickness of other Chemicals with backing			**0.30mm**
6.	Total thickness of slate stone veneer sheet			**0.50mm-0.70mm**
	PHYSICAL PROPERTIES OF STONE VENEER	**TEST VALUE**		**PROTOCOL**
		Slate	**Mica**	
7.	Water absorption, % by wt. (Test carried out on thin slate specimen)	2.50	1.9	ASTM C-121 guidelines
8.	Water Absorption, % wt. (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	 0.7 0.8	 0.9 1.0	IS: 9162-1979 guidelines
10.	Density (Mass per unit area, Kg / M^2	1.45	1.66	IS: 12866-1989 guidelines

SECTION I – HAZARDOUS CONSTITUENTS OF FABRIC BACKING STONE VENEER

Not a hazardous substance or preparation within the meaning of the current Hazardous Materials Regulations (GefStoffV).

SECTION II – IDENTIFICATION OF HAZARDS OF FABRIC BACKING STONE VENEER

No Toxic Effects of exposure / contact:
SKIN CONTACT: Does not irritate skin on prolonged or repeated contact.
EYE CONTACT: Does not cause slight irritation to eyes.
INHALATION: Not Possible being dry product.
INGESTION: Not permissible
DELAYED EFFECTS: Not reported.

SECTION III – FIRST AID MEASURES OF FABRIC BACKING STONE VENEER USE

SKIN CONTACT: Wash skin with water after handling sheets.
EYE CONTACT: Material being dry does not effect eyes
INHALATION: Inert smell.
INGESTION:
NOTE TO PHYSICIAN: There is no specific antidote. Treatment should be given symptomatically on the clinical condition.

SECTION IV FIRE AND EXPLOSION HAZARD OF FABRIC BACKING STONE VENEER

FIRE EXTINGUISHING MEDIA: Material will burn through direct or indirect heat.
Thermal decomposition product: Does yield smoke and irritating gases with oxides of carbon and inorganic fragments. Non Toxic fumes does not come but & dark smoke do when burnt.
SPECIAL FIRE FIGHTING PROCEDURE: Wear self contained breathing apparatus or equivalent (MSHA/ NIOSH- approved)
UNUSUAL FIRE EXPLOSION HAZARDS: Sheet does not burns fast with flames. There is no explosion while burning

SECTION V – ACCIDENTAL RELEASE MEASURES OF FABRIC BACKING STONE VENEER

Personal Precautions: Use personal protective equipment & handling when material needs to be burnt.
ENVIRONMENT PRECAUTIONS: Review fire and safety precautions before proceeding with clean up. Use appropriate personal proactive equipment during clean up. Keep spectators away. Dike and contain spill with an insert (e.g. sand, earth, etc) absorbent collect the absorbed material in plastic beg for final disposal.
CLEANING METHODS: Wash floor with water, contaminated dirking material may be incinerated or land filled according to current local or central regulation.

SECTION VI – HANDLING AND STORAGE OF FABRIC BACKING STONE VENEER

HANDLING PROCEDURE: Use appropriate personal protective Hand Gloves during handling. Protect against physical damage. Observe good hygiene practices.
STORAGE REQUIRMENT: Store at ambient temperature. Keep away from freezing. Keep sheets in stored at room temperature away from flames & fire.

SECTION VII – EXPOSER CONTROL / PERSONAL PROTECTIVE EQUIPMENTS DURING FABRIC BACKING STONE VENEER HANDLING & USE

PERSONAL PROTECTIVE EQUIPMENT: Do not eat drink and smoke when working with FABRIC BACKING STONE VENEER sheets. Wash hands before breaks and after work.
EYE PROTECT: Impervious (rubber, neoprene, pvc, etc.) hand gloves, aprons.
RESPIRATION PROTECTION: None required if good ventilation in the area is maintained. Otherwise suggest to wear MSHA/NIOH approved respirator where vapour concentrations is more.
OTHERS: Eye wash facility and emergence shower.
ENGINEERING CONTROLS: not specific

SECTION VIII – PHYSICAL AND CHEMICAL PROPERTIES OF FABRIC BACKING STONE VENEER

Burning Temperature (°C): About 250-300°C
FLAMMABILITY: Non Combustible.
EXPLOSIVE LIMITS (% by vol.) LEL: NA **UEL:** NA **FLASH POINT:** NA

SECTION IX – STABILITY AND REACTIVITY DATA OF FABRIC BACKING STONE VENEER

CHEMICAL STABILITY: Stable under normal ambient conditions.
INCOMPATIBILITY: Mineral acids and strong salt solution.
HAZARDOUS POLYMERISION: Will not occur.
CONDITION TO AVOID: Not specific.

SECTION X – TOXICOLOGICAL INFORMATION ON FABRIC BACKING STONE VENEER

Material has polymer content the product is not a problem in normal handling and storage. However polymer when heated does not release acetaldehyde into workroom atmosphere when sheets are heated above 195 degree centigrade.

SECTION XI – ECOLOGICAL INFORMATION ON FABRIC BACKING STONE VENEER

Not determined, however as a general practice, do not allow product to overheat flame exposure or extreme cold close to sub zero.

SECTION XII – DISPOSAL INFORMATION ON FABRIC BACKING STONE VENEER

The damaged / discarded material may be disposed of in accordance with current local or central regulation.

SECTION XIII – TRANSPORTATION INFORMATION ON FABRIC BACKING STONE VENEER

DO INFORMATION: Not applicable **TDG INFORMATION:** Not determined
The material is not considered as dangerous for transportation

SECTION XIV – MISCELLANEOUS INFORMATION

DISCLAIMER: The data presented here is based on information we believe to be reliable but unknown risk may be present. We disclaim liability for damage or injury which result for the use of the above data and nothing contained therein shall constitute guarantee or a warranty (including warranty of merchantability or fitness for a particular purpose) or representation (including freedom from patentability) by us with respect to the accuracy or completeness of the data the product described or

their use for any specific purpose as known to us. The final determination of the suitability of information, the manner of use of information or product and potential infringement of patents is the sole responsibility of the user.

CE

No: DoP01
Sistem 3

İncetaş Madencilik Sanayi Dış Ticaret Ltd. Şti.
Dikilitaş Mh. Ayazmaderesi Cd. No.38/A Beşiktaş İSTANBUL

17

EN 15102

Dekoratif Doğaltaş Levhası

Yangına karşı tepki sınıflandırması	**E**
Formaldehit salınımı	**Uygun** ***Pass***
Tehlikeli maddelerin salınımı: - ağır metaller ve belirli elementler - vinil klorür monomer (VCM)	**Uygun** ***Pass*** **Uygun** ***Pass***
Ses soğurumu	**Performans Belirtilmemiştir (NPD)**
Termal direnç	**Performans Belirtilmemiştir (NPD)**