

# SMART ELASTIC STONE

Unique Finishing Material

# TECHNICAL INFORMATION

ICM TECHNOLOGY (THAILAND)



# ELASTIC STONE™

### Unique Finishing Materials



# SMART ELASTIC STONE™

## AN INNOVATIVE FINISHING MATERIALS

## **Description and Characteristics**

A unique stone finishing material created with Patented Technology. Available in different design and stone types. Is designed to fully reflect the costly effects of exterior and interior decoration of walls, ceilings, cornices, columns and other complex elements with natural stone and wood. Multi-layer material, face layer consists of natural stone marble, right under it a Patented Technology. All ingredients for production natural, no synthetics or chemicals!! A Truly GREEN PRODUCT!

#### **Advantages**

- Lightweight
- Energy saving
- Insulation against water, vapor, mold and noise
- Color is resistant to UV rays
- Ecological and economic benefits
- Immune to cracking and breaking as a result of sharp climate changes
- Design Prep. No special calculations needed
- Installation Quick and Easy
- Safety There is no danger in case a piece comes loose
- Impregnability Endures all weather conditions and ground movements
- Transport & Storage Light and Thin. Easy to transport and store large quantities
- Easily bent to 180 degrees, allowing installation on angular or radial surfaces
- Suitable for exterior and interior

## **Technical Specification**

Size:

Ecology: Weight:  $2-3.5 \text{ Kg/m}^2$ **Temperature Condition:** Thermal Factor: 0.137 w/Mk Water Absorption: Thickness: 2-3.5mm 8.1 MPa Rupture Resistance:  $600 \text{ Kg/m}^2$ Peeling Force: NONE Micro Cracks: UV: Level 5 Fire: Inflammable

Available in different sizes, colors and factures. Class 1 (no radiation background) 2-3.5 Kg/m<sup>2</sup> Minimum -50°C; Maximum +420°C 0.137 w/Mk Less than 5% (after installation) 2-3.5mm 8.1 MPa 600 Kg/m<sup>2</sup> NONE Level 5 Inflammable



# **CERTIFICAT DE INREGISTRARE**

Acest certificat confirma faptul că sistemul de management al

## "SPERANȚA VIEȚII" SRL

MD-2065, str. Ismail, 68/1, ap.(of) 179, mun. Chișinău, Republica Moldova

a fost auditat și aprobat de către Quay Audit UK Ltd pentru următorul standard de management :

#### BS EN ISO 14001:2015

Sistemul de management aprobat se aplică pentru urmatoarele domenii de activitate:

Fabricarea plăcilor decorative cu față netedă și cu față reliefată pentru finisarea decorativă interioară și exterioară a pereților

Acest certificat se aplica pentru acele domenii de activitate descrise în Codurile NACE(CAEN) enumerate mai jos, recunoscute internațional:

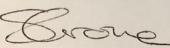
#### 2331

Aprobat initial la	20 Septembrie 2018
Certificare initiala la	20 Septembrie 2018
Certificatul expira la	20 Septembrie 2021
Numarul certificatului	4156505

REGISTERED MANAGENENT SYSTEMS BS EN ISO 14001:2015 URAY MOLT LEBRO

În numele Quay Audit UK Limited

www.ascb.com







Acesta este un certificate acreditat si autorizat pentru emitere de catre Accreditation Service for Certifying Bodies (Europe) Limited, evaluat de catre Quay Audit UK Limited in conformitate cu ISO 17021: 2006 "Evaluarea conformitatii, Cerinte pentru organisme care efectueaza audit si certificare de sisteme de management". Acest certificat este valabil numai atunci când este inscris in registrul International Register of Quality Assessed Organisations: www.irqao.com

www.global-accreditation.org

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Centrul Republican de Pedologie Aplicată	Raportul de Încercări nr. 184 din 26.03.2013	Ediția: 1/06.2009
Laboratorul de Încercări "Agrochim"	Cod RI-5.10	pag. 1 din 2

Ministerul Agriculturii și Industriei Alimentare al RM Centrul Republican de Pedologie Aplicată

Laboratorul de Încercări "Agrochim"

MD 2005 or. Chişinău, str. Cosmonauților, 6, tel.: 24-34-04, fax: 22-10-47

Acreditare în:

Sistemul de acreditare al RM certificat nr. SNA MD CAECP LÎ 01034 din 16.10.10 valabil până la 16.10.13.

# CONTROLUL RADIOLOGIC AL MATERIALELOR DE CONSTRUCȚIE

Denumirea produsului: Plăci decorative din amestec de polimer, cuart și ciment

Producătorul: \_\_\_\_\_\_, Speranța Vieții" S.R.L., mun. Chișinău

Solicitantul adresa: S.R.L. "CertMatCon" (pentru "Speranța Vieții" S.R.L.)

Locul prelevării: \_\_\_\_\_\_\_ secția producere, or. Sîngera

Scopul și sarcinile încercărilor: determinarea activității efectiv specifice a radionuclizilor naturali

în conformitate cu: \_\_\_\_\_ GOST 30108-1994; RNI nr. 06.5.3.35-2001

Data primirii mostrelor: <u>26 martie 2013</u>

Numărul de mostre testate: una

Data începutului testării: 26 martie 2013

Data sfårşitului testării: 26 martie 2013

Mostrele sunt prezentate în baza: Act de prelevare nr. 064 din 08.02.2013





Research and development works | Accredited Group of Laboratories | Notified Body N° 1488 | EOTA member | Certified management systems ISO 9001, ISO 27001

## REACTION TO FIRE CLASSIFICATION REPORT IN ACCORDANCE WITH PN-EN 13501-1+A1:2010

Contract no.	01267/17/Z00	NZP

Sponsor:	Flex Decor Elastic Stone Decoration Ltd. Alonim St 14/53 4256514 Netanya Israel
Prepared by:	Building Research Institute; 1, Filtrowa str. 00-611 Warszawa, Poland
Product name:	Finishing material with trade name SMART STONE for ceilings, internal and external walls
Classification report No.:	1267/17/Z00NZP
Issue number:	1 (version in English) Copy for ITB
Date of issue:	14.07.2017

This classification report consists of three pages and may only be used or reproduced in its entirety.

#### 1. Introduction

This classification report defines the classification assigned to finishing material with trade names SMART STONE in accordance with the procedures given in PN-EN 13501-1+A1:2010.

#### 2. Details of classified product

#### 2.1 General

The product is defined as finishing material for ceilings, internal and external walls.

#### 2.2 Product description

The product, is described below.

Product description: Finishing material with trade name SMART STONE. Material consist marble powder, quartz sand, white cement, nonwoven material (fiber glass) The thickness of material is 2,5 – 3,5 cm.

Surface mass of product 2,5 - 3,5 kg/m2

#### 3. Test reports & test results in support of classification

#### 3.1 Test reports

Name of laboratory	Name of sponsor	Test report no.	Test method
Fire Testing Laboratory	Flex Decor Elastic	LZP01-1267/17/Z00NZP	PN-EN ISO 11925-2:2010
of ITB	Stone Decoration Ltd.	LZP02-1267/17/Z00NZP	PN-EN 13823+A1:2014

00-611 Warsaw | Filtrowa 1 | titl. +4822 825 04 71 | fax, +4822 825 52 86 | Regon: 000063650 | VAT: PL5250009358 | Bank Peliao S.A. | IBAN: PL86124059181978000049091832 | SWIFT: PKOPPLPW | www.lib.pl | instytutg/itb.pl

#### Classification report no. 1267/17/Z00NZP (version in English) Copy for ITB 3.2Test results

2/3

	Parameter		Results	
Test method		Number of tests	Continuous parameter – mean (m)	Compliance with parameters
PN-EN ISO 11925-2 Surface and edge on front and rear side of product	F <sub>s</sub> ≤150 mm	6	(-)	Y
exposure exposure time 30 s Material with trade name SMART STONE	Flaming Droplets/particles		()	N
	FIGRA 0.2MJ		19,9	(-)
	FIGRA 0.4MJ		19,9	(-)
PN-EN 13823	LFS < edge		(-)	Т
Material with trade name	THR <sub>600s</sub> [MJ]		0,7	(-)
SMART STONE	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]	3	0,7	(-)
SWART STONE	TSP <sub>600s</sub> [m <sup>2</sup> ]		39,1	(-)
	Flaming Droplets/particles		()	N

#### 4 Classification and field of application

#### 4.1 Reference of classification

This classification has been carried out in accordance with PN-EN 13501-1+A1:2010.

#### 4.2 Classification

The products, material SMART STONE described in point 2 this classification report, in relation to its reaction to fire behaviour are classified:

#### в

The additional classification in relation to smoke production is:

#### **s**1

The additional classification in relation to flaming droplets/particles is:

#### d0

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire behaviour		Smoke p	roduction	Flaming	droplets
в	-	s	1	d	0

i.e.: B-s1,d0

# Reaction to fire classification: B-s1,d0

#### 4.3 Field of application

This classification is valid for the following product parameters:

- Material SMART STONE described in point 2 this classification report.

This classification is valid for the following substrates, fixing and air gaps:

- substrates with fire classifications A1 and A2,
- without gaps.

#### 5 Limitations

.....

This classification given remains valid as long as:

- test method remains unchanged,
- product standard or technical approval remains unchanged,
- constructional or material modifications do not exceed limits of the field of application defined in 4.3.

This classification document does not represent type approval or certification of the product.

#### SIGNED

APPROVED Fire Research Department Pawel Sullik, PhD, Civil Eng.

Head of Fire Development and Material Testing Division m Bartlomfel K. Papis, Ph.D. Eng.

# מת) מכון התקנים הישראלי

דו״ח בדיקה מס׳ 9411914067

# פרטי ההזמנה

Art	Stone Ltd קפלן עדי	:	שם המזמין
	האלונים 14 , נתניה	:	מעכו
5 · · · · · · · · · · · · · · · · · · ·	18/8/2014	: 113	תאריך ההזמו

# תאור המוצר

ציפוי אלסטי דמוי אבן טבעית שיושם על בלוקי סיליקט במידות 40 X20 סיימ.

# פרטי הנטילה

המדגם נבדק בתאריך : 2/11/2014

מקומות הבדיקה נבחרו עייי בא כח : המזמין

גודל המדגם: 2 דוגמאות

# מהות הבדיקה

לבקשת המזמין , בדיקת חדירות מי גשם לפי שיטה המתוארת בסעיף : 3.5.3; ייבדיקת חדירות מים בתנאי גשם יי של התקן הישראלי תייי 1731 – ייציפוי מרקם על בסיס פולימרים סינתטייםיי, מדצמבר 1995.

דפים	2	דוייח זה מכיל
אלא	בו	ואין להשתמש
		במלואו

תוצאות הבדיקה במסמך זה

מתייחסות רק לפריט שנבדק.

מעבדות בניין

# תוצאות הבדיקה

הערות : הדוגמא יושמה והובאה על ידי מזמין הבדיקה.

. 2 תוצאות הבדיקה מובאות בדף מסי

שם החותם: מהגדס משה חיים שם החותם: זוהר פייסיק ראש ענף מוצרי שלד גימור ואיטום : תפקידו ראש מדור חומרי איטום וציפויים: תפקידו 2/11/2014

רח׳ חיים לבנון 42, תל-אביב 7, 6997. טל׳ 03-6465125 פקס׳ 03-6429080 ארח׳ חיים לבנון 42, תל-אביב 69977.

# מתי) מכון התקנים הישראלי

דף מסי 2 מתוך 2 דפים

דוייח בדיקה מסי 9411914067

מעבדות בניין

10

# תוצאות הבדיקה

דרישת תייי 1731	תוצאה למדגם	התכונה הנבדקת	מספר סעיף
3.5.3 סעיף		ותקציר הדרישה	בתקן
לא יעברו מים דרך כל דוגמה ולא יופיעו טיפות מים בצידו האחורי של הציפוי האחורי של הציפוי משקלה של כל דוגמה יותר מ – 200 גי	לא עברו מים לצידה האחורי של הדוגמא לא נראו כתמי רטיבות בגב הדוגמא	בדיקת חדירות מים בתנאי גשם	3.5.3

תל-אביב/ 2.11.2014 תי 1731 - ממוחשב

www.sii.org.il 03-6429080 ירחי חיים לבנון 42, תל-אביב 69977. טלי 63-6465125 כקם׳ 03-6429080

# E STANDARDS INSTITUTION OF ISRAEL

#### **Building Materials Laboratory** A SHARE BUILDING

# THE STANDARDS INSTITUTION OF ISRAEL

#### TEST REPORT No. 9411914067

Details of order:

The test was ordered by : ArtStone Ltd. - Kaplan Adi

Address : 14 HaAlonim, Netanya, ISRAEI.

Date of order : 18/8/2014

Sample size: 2 specimens The test locations were selected by: a representative of the customer.

The sample was tested on : 2/11/2014

Description of sample:

Elustic coating resembling natural stone, applied to silicate blocks of dimensions: 40 x 20 cm.

#### Nature of test:

At the customer's request, testing the penetration of rainwater according to the method described in clause 3.5.3, "Testing the penetration of water under conditins of rain" in accordance with Israel Standard, SI 1731 "Texture coating based on synthetic polymers": of December 1995.

This document contains two pages and may be used only in full. .

The test results in this document refer only to the item tested.

**Test conclusions:** 

Note: The test specimen was applied and brought by the customer.

The test results are given on page 2.

The original Test Certificate was signed by : Name: Eng Lia Name : Zohar Peisic roducts and Finishing Branch Position: F onsi Position + Head, Sealing Oating Material on : 2014/11/2 year month day r confirm that this is a true translation of the Hebrew original. Only the original test certificate is authentic. Signature Name : Eng. Moshe Haim

Position : Head, Construction Products and Finishing Branch

Date : 2014/11/2 year month day

# This document is not approval

# THE STANDARDS INSTITUTION OF ISRAEL

Building Materials Laboratory)

#### Test Report No. 9411914067

Page 2 of 2 pages

#### Test results

Clause in Standard	Property tested and abstract of the requirement	Result for the sample	Requirement of SI 1731 clause 3.5.3
3.5.3	Testing water penetration under rain conditions	Water did not permeate to the reverse side of the specimen. No moisture stains were observed on the back of the specimens.	Water shall not permeate through each specimen and no drops of water shall appear on the reverse side of the coating If moisture stains appear, the specimen weight of each specimen shall not increase by more than 200 g.

Invoice: Tel-Aviv/ 2.11.2014 SI 1731

This document is not approval for marking the product with the Standards Mark

42 Chaim Levanon St. Tel-Aviv 69977 Israel. Tel: 972-3-646-5125 Fax: 972-3-642-9080 www.sii.org.il

Report on 7	<b>Festin</b>	g Fle	x Décor flex	tible cover with	sika/saha	al glue a	roun	d Sea enviro	nmei	SYS	тем
				Report Nu	mber:	65089	<u>6-2</u>			ADVANCED L	ABORATORIES LTD.
Project an Project Na Client's N Client's ac Contracto Construct Supplier / 1 According Sample Da	ame: ame: Idress r: ion: Produc g to SI	s: cer: 2378	Flex Decor St. Alonim Flex Decor Preliminar Flex Decor 3 - Part 1 cial Name:	rystallization decor - elastic Stone D 14 - Netanya - elastic Stone D	ative elastic esign Ltd esign Ltd esign Ltd astic Sto			Sam Branch addr	I ( pled i E ress:		61767   650896-2   23/09/16   23/09/16   by the client   Yavne   ul HaTzomet"   ch 1 - Yavne   2   200*200*8
				Decorating Tlt						on Declared:	200*200*8
		L	abel/Sign:						-		Preliminary tests
Sedimen   Magmati   Metamore	tary: . <u>c:</u>	X	Limestone Granite Flexible co	Dolomite Basalt pating material	Sandsto Diorite covering		Ga	vron Stone vro <b>x Décor</b>		ormal <u>Sea env</u>	onditions: freeze/thaw air pollution ironment
		_									
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Approved Form No. 5271-	by:	30/250/250		nical Manager		Date:	09/11	./16	S	Signature	

Report	on Test	ing Flex D		cover around Sea nber: 650896-1	a environme		
Project N Client's N Client's a Contracto Contracto	struction: Preliminary tests			-	0	61767 650896-1 23/09/16 23/09/16 by the client Yavne I HaTzomet" th 1 - Yavne	
According	g to SI 237	8 - Part 1					
Sample D	Comme	Color:	<b>Decorating</b> Tlti		Absor	Sample Size: mensions (mm): ption Declared: h Quantity (m2)	3 200*200*2.5 - Preliminary tests
Type of st	one:				E	Invironmental co	nditions:
<u>Sedimer</u> <u>Magmat</u> <u>Metamo</u>	<u>ic:</u>	Limestone Granite Flexible co	Dolomite Basalt Dating material of		evron Stone avro <u>ex Décor</u> 2	normal   Sea envir	freeze/thaw air pollution ronment
	T	est Results					
Std. Par.		.1.4	6.1.10 / 6.1.8				NERSON, Ministerrations
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2	disinteg	gration or on of layers	0.2		Real		
3			0.9	- marine	1.23		
Requirement	disinteg	t cracking, gration or on of layers	Max 3%		1-15	AT A	a l'
Compliance to SI 2378 - part 1:	Com	pliance	Compliance	1			,
The tests were performed on elastic flexible decorative material type Flex Decor demanded by the customer representative .					the corren Test result were teste The report	t is only relevant in its e	es. the samples that entirely and no part
			Page 1 of 2		The numb	be used or copied with oer of samples and sample	decuments.
Tested I Approved		n Vaisman i Maor - Tech	nical Manager	Date: 09/1		Signature	
Form No. 5271			0				

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#### EVALUATION OF EXTERIOR CLADDING MATERIAL FOR WATER VAPOR PERMEANCE IN ACCORDANCE ASTM E96/E96M TEST METHOD

A Report to:

Elastic Stone 811-1630 Henderson Hwy, Winnipeg, MB R2G 2B9

Attention:

Mr. Alexei Golovei

18-006-537235

18-06-P0024

4 pages

Telephone: Email: 204 951 7078 alexei@elasticstone.ca

Proposal No.:

Report No.:

Date:

February 28, 2017

#### 1.0 INTRODUCTION

At the request of *W.R. Meadows Inc.,* Exova was retained to evaluate air barrier material for Water Vapor Permeance (WVP) in accordance with the ASTM E96/E96M-16 Standard.

Upon receipt, the sample was assigned the following Sample Number:

Client Sample Identification	Exova Sample No.
Pink Color Material	18-06-P0024-1
Grey Color Material	18-06-P0024-2

#### 1.0 PROCEDURE

The sample was tested in accordance with the following parameters:

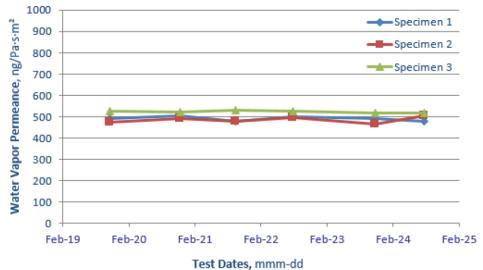
Test Description	Test Method
Standard Test Methods for Water Vapor Transmission of Materials	ASTM E96/E96M-16

Specimen Preparation: Procedure:	The specimen was cut to fit onto the container tray. A (Desiccant)			
No. of Specimens Tested:	3 (three) specimens with 1 (one) dummy –For each sample			
Sealant: Test Area: Container Design:	Type 1 GE Silicone (100% silicone) 0.0156 m² (125 mm, Square dish) Stainless steel			
Conditions:	$23 \pm 2^{\circ}$ C; $50 \pm 2\%$ Relative Humidity			
Equipment:	Digital balance (0.01g resolution), Mitutoyo digital callipers, Environmental controller, Barometer,MII# A13646 MII# B02703 MII# B14944 MII# B14977			
Thickness:	1.78 mm (Average Thickness for Pink Sample) 3.15 mm (Average Thickness for Grey Sample)			
Vapor Flow:	From Coated side to non-coated side			
Test Dates:	2018-02-17 to 2018-02-24			

#### 3.0 RESULTS

A summary of test results is presented in Tables and Figures 1 & 2. SI units are the primary units of measure.

Table 1 – Water Vapor PermeanceASTM E96/E96M-16, Desiccant methodExova Sample No.: 18-06-P0024-1 (Pink Sample)						
Specimen		Mass, g		Water Vapor Permeance		
No.#	Initial	Final	Change	ng/Pa⋅s⋅m²	US Perms	
1	1504.06	1509.05	4.99	490.9	8.583	
2	1404.30	1409.20	4.90	484.6	8.472	
3	1359.81	1365.12	5.31	523.6	9.153	
Average	1422.72	1427.79	5.07	499.7	8.736	



#### ASTM E96/E96M - 16 "Water Vapor Permeance"



Table 2 – Water Vapor Permeance - InfiltrationASTM E96/E96M-16, Desiccant methodExova Sample No.: 18-06-P0024-2 (Grey Sample)						
Specimen	Mass, g			Water Vapor Permeance		
No.#	Initial	Final	Change	ng/Pa⋅s⋅m²	US Perms	
1	1565.45	1571.97	6.52	628.3	10.984	
2	1378.03	1387.16	9.13	879.5	15.376	
3	1436.11	1444.47	8.36	804.5	14.066	
Average	1459.86	1467.87	8.00	770.8	13.475	

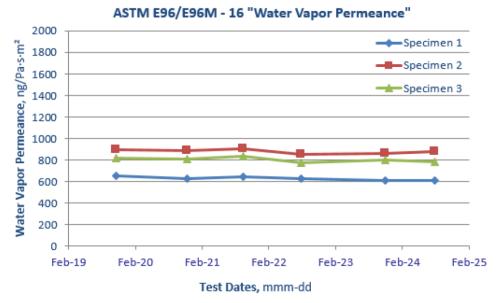


Figure 2: WVP vs. Elapse Time - Vapor Infiltration

#### 4.0 CONCLUSION

The "*Exterior Cladding*" material submitted by *Elastic Stone.*, has been tested for water vapor transmission test as described in this report.

#### 5.0 REVISION HISTORY

<b>Date:</b> 2018-02-28	Revision: 0	Comments: Draft Report
Reported by:		Approved by:
Muhammad Ahsan, E.I.T, Ex Building Products Specialist Products Testing Group	. 11221	Franz Bauer, Ext. 11403 Technical Manager, Building Products Products Testing Group

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