TEST REPORT

EN 15102:2019
Decorative wall coverings. Roll and panel form

Report Reference No. :	RPT2304170249YR
Tested by (name and signature) ..... :	Denny / Project Engineer
Approved by (name and signature).. :	Eric Deng / Manager
Date of issue ..... :	Apr.26, 2023
Testing Laboratory..... :	Shenzhen YES Testing Technology Co., Ltd
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Applicant's name ..... :	MAGIC STONE GREEN BUILDING MATERIAL CO., LIMITED
Address ..... :	102-A01, 1st Floor, West Workshop, No. 2 Chanxiu Road, Nanzhuang Town, Chancheng District, Foshan City, Guangdong Province, China
Test standard ..... :	EN 15102:2019
Test item description ..... :	Unfired Flexi Modified building Material Cladding
Trademark..... :	N/A
Manufacturer……..……..:	MAGIC STONE GREEN BUILDING MATERIAL CO., LIMITED
Address……..……..:	102-A01, 1st Floor, West Workshop, No. 2 Chanxiu Road, Nanzhuang Town, Chancheng District, Foshan City, Guangdong Province, China
Model(s) ……..……..:	Flexi Modified Clay Material Decorative Wallcoverings

Test case verdicts:	
Test case does not apply to the test object…..:	N(/A)
Test object does meet the requirement……:	P(ass)
Test object does not meet the requirement….:	F(ail)
Testing:	
Date of receipt of test item……..:	Apr.19, 2023
Date (s) of performance of tests……:	Apr.19, 2023 –Apr.26, 2023

General remarks

This test report shall not be reproduced except in full without the written approval of the testing laboratory.

The test results presented in this report relate only to the item tested.

"(see remark #)" refers to a remark appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

Remark :

- The EUT complies with the requirement of standard EN 15102:2019

Copy of marking plate:

Unfired Flexi Modified building Material Cladding

Model: Flexi Modified Clay Material Decorative Wallcoverings

EN 15102:2019 CE

MAGIC STONE GREEN BUILDING MATERIAL CO., LIMITED
102-A01, 1st Floor, West Workshop, No. 2 Chanxiu Road, Nanzhuang Town, Chancheng District, Foshan City, Guangdong Province, China

Made in China

EN 15102:2019			
Clause	Requirement - Test	Result - Remark	Verdict

4	**Characteristics**		---
4.1	**Reaction to fire**		N/A
	Where use of a wall covering product as internal finishes on walls, partitions and/or ceilings is subject to the reaction to fire regulation requirements, its reaction to fire class (including the additional classification onsmoke production and flaming droplets/particles, if any) shall be determined and declared according to EN13501-1		N/A
	a) either without the need for further testing (CWFT), as given in Table 1 1), if the wall covering product is proved to meet the requirements of the class given therein;		N/A
	b) or based on testing of the wall covering product according to the standards referred to in EN 13501-1, when the wall covering product does not meet the requirements of Table 1 or where a higher class than the one in a) is sought.		N/A
	NOTE Class F may be declared, which is an equivalent to "No Performance Determined" (NPD) for this characteristic, when use of wall covering product is not subject to the national regulatory requirements on reaction to fire.		N/A
	Table 1 — Classes of reaction to fire performance for decorative wall coverings in roll and panel form		N/A

Product [a]	Maximum mass per unit area (g/m^2)	Maximum Thickness (mm)	Class [b]
Wallcoverings on cellulose fibre base	190	0,9	Ds3,d2
Wallcoverings on cellulose fibre base and polymer coated or printed	470	0,7	
Wallcoverings on a mixture of cellulose and polyester fibre base	160	0,3	
Wallcoverings on a mixture of cellulose and polyester fibre baseand polymer coated or printed	410	0,5	
Wallcoverings on polymer coated fabric base	510	0,7	
Wallcoverings of woven textile with a backing consisting ofcellulose fibre or cellulose and polyester fibre	450	0,8	
Wallcoverings of foamed PVC with a backing consisting ofcellulose fibre or cellulose and polyester fibre	310	1,8	

[a] Products in accordance with EN 15102 mounted on a substrate of at least class A2-s1,d0 with a minimumthickness 12 mm and wth minimum density 800 kg'm using starch, or starch/PVA, or cellulose/PVA adhesive applied at amaximum 200 g/m^2

[b] Class as provided for in Table 1 of the Annex to Commission Decision 2000/147/EC.

	When option b) is applied and where required by the test methods, the wallcovering product shall be tested in its end use conditions according to Annex B. In this case, the class declared shall be followed also by the associated mounting and fixing conditions (only if relevant for this class)."		N/A
4.2	**Release of formaldehyde**		P

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Clause	Requirement - Test	Result - Remark	Verdict
	The release of formaldehyde from the wallcovering product shall be declared when subject to regulatory requirement and may be declared otherwise. The formaldehyde release, when tested in accordance with Test C of EN 12149:1997 (as modified in Annex A of EN 12781:2001 or EN 13085:2001 for cork wallcovering products in panel form and roll form respectively) shall not exceed 120 mg/kg of wallcovering.		P
	If no formaldehyde or products containing formaldehyde are added during the manufacturing process of the wallcovering product, and the raw materials are declared by the supplier to contain less than 120 mg/kg of formaldehyde, then testing is not necessary.		N/A
4.3	**Release of other dangerous substances**		P
4.3.1	**Heavy metals and specific elements**		P
4.3.1.1	**Requirements**		P
	The migration of heavy metals and specific elements from the wallcovering product, expressed as mg/kg of wallcovering, shall not exceed the values given inTable 2 (after correction according to 4.3.1.2) when measured in accordance with Test A of EN 12149:1997. If none of these substances are added during the wallcovering manufacturing process, and all the raw materials are declared by the supplier to meet the requirements of Table 2, then testing is not necessary.		P
4.3.1.2	**Interpretation of results**		P
	The analytical results on migration of heavy metals and specific elements from the wallcovering product, obtained from the tests specified in EN 12149:1997 shall be corrected by subtracting the value of the analytical correction factors given in !Table 3" in order to obtain a corrected analytical result.		P
	The wallcovering product shall be considered to meet the requirements of this European Standard if the corrected analytical result does not exceed the limits indicated in Table 2 Given the precision of the methods specified in this European Standard, the corrected analytical result to take into account the results of inter-laboratory tests (see Annex D of EN 71-3:2019) shall be used.		P
	EXAMPLE: Analytical result for lead: 120 mg/kg		P
	Corresponding analytical correction in Table 3: 30 %.		P

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	Corrected analytical result = 120 − (120 × 30)/100 = 120 − 36 = 84 mg/kg. This is regarded as satisfying the requirements of the standard (i.e. lead ⩽ 90 mg/kg).		P
	NOTE The measuring methods used in EN 12149:1997 are derived directly from EN 71-3:2019 on the safety of toys.		P
	Annex D of EN 71-3:1994, in particular D.4 'Statistical uncertainty of the test procedure and interpretation of results justifies the introduction of a correction factor		P
	Table 2 — Maximum migration of heavy metals and specific elements of wallcovering products Heavy metal or element / Symbol / Maximum migration in mg/kg Antimony / Sb / No upper limit Arsenic / As / 25 Barium / Ba / 500 Cadmium / Cd / 25 Chromium / Cr / 60 Lead / Pb / 90 Mercury / Hg / 20 Selenium / Se / 165		P
	Table 3— Analytical correction factor Element: Sb 60; As 60; Ba 30; Cd 30; Cr 30; Pb 30; Hg 50; Se 60 Analytical correction factor (in percentage)		P
4.3.2	**Release of vinyl chloride monomer**		P
	The release of vinyl chloride monomer (VCM) from the wallcovering product shall be declared when subject to regulatory requirement and may be declared otherwise. The maximum VCM release when tested to Test B of EN 12149:1997 shall not exceed 0,2 mg/kg of wallcovering.		P
	If no polyvinyl chloride or products containing vinyl chloride are used during the manufacturing process of the wallcovering product or if the raw materials used are declared by the supplier to contain less than 1 mg/kg of vinyl chloride monomer, then testing on VCM release is not necessary.		P
4.4	**Sound absorption**		N/A
	The sound absorption of the wallcovering product shall be declared when its intended end use is subject to regulatory requirement and may be declared otherwise. It shall be measured in accordance with EN ISO 354 and expressed as a single number rating according to EN ISO 11654.		N/A
4.5	**Thermal resistance**		P
	The thermal resistance of the wallcovering product shall be declared when its intended		P

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	end use is subject to regulatory requirement and may be declared otherwise. The value shall either be taken from EN 12524 or the products shall be tested in accordance with EN 12667 and a value declared in m2K/W or W/(mK)		
5	**Evaluation of conformity**		--
5.1	**General**		P
	The conformity of the wallcovering product with the requirements of this standard and with the stated values (including classes) shall be demonstrated by: - initial type testing, - factory production control by the manufacturer, including product assessment (see Annex A).		P
	For the purposes of testing, wallcovering products may be grouped into families (see 3.3)		P
5.2	**Initial type testing**		P
5.2.1	**General**		P
	Initial type testing shall be performed to show conformity of the wallcovering product with this standard. Tests previously performed in accordance with the provisions of this standard (same product, same characteristic(s), test method, sampling procedure, system of attestation of conformity, etc.) may be taken into account. In addition, initial type testing shall be performed at the beginning of the production of a new product type (unless a member of the same family) or at the beginning of a new method of production (where this may affect the stated properties).		P
	All characteristics in Clause 4 shall be subject to initial type testing.		P
	Whenever a change occurs in the product raw materials, raw material suppliers, or the production process (subject to the definition of a family), which may change significantly one or more of the characteristics given in Clause 4, then the initial type testing shall be repeated for the appropriate characteristic(s).		P
5.2.2	**Sampling, testing and compliance criteria**		P
5.2.2.1	**Sampling procedure**		P
	The sample of the wallcovering product taken for initial type testing shall be representative of normal production or, in the case of new products, samples representative of intended future production.		P
	Whenever practicable, the random sampling method shall be used, in which every product in a batch has an equal chance of being selected for the sample. The required numbers of product shall be selected from a batch at random, without		P

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Clause	Requirement - Test	Result - Remark	Verdict
	any consideration given to the condition or quality of the selected products.		
	When random sampling is impracticable, e.g. when the products form a large stack or stacks with ready access to only a limited number of products, a representative sampling procedure shall be used.		P
5.2.2.2	**Testing and compliance criteria**		P
	The testing and compliance criteria are given in Table 4.		P
	The results of all initial type testing shall be recorded and held by the manufacturer for at least 5 years after the last date of production of the wallcovering product to which they relate.		P
	Table 4 — Testing and compliance criteria for initial type testing of the wall covering product		P

Characteristic	Requirement clause	Assessment method	Number ofspecimens	Conformity criteria
Reaction to fire	4.1 a)	See Note 1	See Note 1	Table 1
	4.1 b)	Tests referred to from EN 13501-1 (testing)	As required by theappropriate test standard	See classification in EN 13501-1
Release of formaldehyde	4.2	EN 12149:1997 (EN 12781:2001 or EN13085:2001 for cork products)	As required by The appropriate test standard	See 4.2
Release of heavy metals and specific elements	4.3.1	EN 12149:1997	As required by thetest standard	See 4.3.1.2
Release of vinyl chloride monomer (VCM)	4.3.2	EN 12149:1997	As required by thetest standard	See 4.3.2
Sound absorption	4.4	EN ISO 354 (testing) EN ISO 11654 (classification)	See note 2	See 4.4
Thermal resistance	4.5	EN 12667 EN 12524	See note 2	See 4.5
NOTE 1 Although no direct testing of reaction to fire is needed for CWFT products, indirect testing of product parameterscan be necessary to ensure that the product meets the definition required for CWFT status. NOTE 2 Three specimens, each sample from a separate unit, with units selected according to the procedure of 5.2.2.1.				

5.3	**Factory production control (FPC)**		P
	The manufacturer shall establish, document and maintain an FPC system to ensure that the subsequent wallcovering products placed on the market conform to the declared performance characteristics obtained on the basis of initial type testing. The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, theproduction process and the product. The FPC system shall comply with at least the requirements of Annex A.		P
6	**Marking and labelling**		P
	When compliance with this European Standard is claimed, the wallcovering product, its packaging		P

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Clause	Requirement - Test	Result - Remark	Verdict
	or a label inside the packaging shall display the following information in such a way that it can be read without removing the wallcovering product from the packaging:		
	a) number of this standard, i.e. EN 15102;		P
	b) manufacturer's or supplier's identification;		P
	c) product name and batch number (possibly in code form)		P
	NOTE Where ZA.3 covers the same requirements as this clause, the requirements of this clause are met.		P
Annex A	**Factory production control**		--
A.1	**General**		P
	The manufacturer shall establish, document and maintain a factory production control (FPC) system to ensure that the subsequent wallcovering products placed on the market conform to the declared performance characteristics. The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product.		P
	All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures. This production control system documentation shall ensure a common understanding of the conformity evaluation and enable the achievement of the required product characteristics and the effective operation of the production control system to be checked.		P
	Factory production control therefore brings together operational techniques and all measures allowing maintenance and control of the conformity of the product with its technical specifications. Its implementation may be achieved by controls and tests on measuring equipment, raw materials, processes, machines and manufacturing equipment and finished product, and by making use of the results thus obtained.		P
A.2	**General requirements**		P
	As a minimum, the FPC system shall fulfil the requirements as described in the following clauses of EN ISO 9001:2000, where applicable: - 4.2 (except 4.2.1 a)), - 5.1e), 5.5.1, 5.5.2, - Clause 6, - 7.1 (except 7.1 a)), 7.2.3 c), 7.4, 7.5, 7.6, - 8.2.3, 8.2.4, 8.3, 8.5.2		P

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Clause	Requirement - Test	Result - Remark	Verdict
	The FPC system shall: – be made specific to the products covered by this European Standard, and – ensure that the products placed on the market conform to the declared performance characteristics		P
	The FPC system may be part of a quality management system, e.g. in accordance with EN ISO 9001:2000.		P
	The results of inspections, tests or assessments requiring action shall be recorded, as shall any action taken.		P
	The action to be taken when control values or criteria are not met shall be recorded and retained for the period specified in the manufacturer's FPC procedures.		P
A.3	**Equipment**		P
A3.1	**Testing**		P
	All weighing, measuring, and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.		P
A3.2	**Manufacturing**		P
	All equipment, where applicable, used in the manufacturing process shall be regularly inspected and maintained to ensure that use, wear or failure does not cause inconsistency in the manufacturing process. Inspections and maintenance shall be carried out and recorded in accordance with the manufacturer's written procedures and the records retained for the period defined in the manufacturer's FPC procedures.		P
A.4	**Raw materials**		P
	The specifications of all incoming raw materials shall be documented, as shall the inspection scheme for ensuring their conformity. In determining the checks required, consideration shall be given to the control exercised by the supplier and the documented evidence of conformity		P
A.5	**Product testing and evaluation**		P
	The manufacturer shall establish procedures to ensure that the declared values of all the characteristics are maintained or in the case of new products are capable of being maintained. The characteristics and the means of control are:		P
	a) Reaction to fire		P
	Routine control of reaction to fire classification shall be on the basis of checks, of a type and a frequency to be defined and documented by		P

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Clause	Requirement - Test	Result - Remark	Verdict
	the manufacturer. These checks are to ensure that the raw materials remain within the tolerances specified and the composition of the finished wallcovering product remains the same as that subject to initial type testing.		
	b) Release of formaldehyde, heavy metals and specific elements, and vinyl chloride monomer		P
	Routine control of these characteristics shall be on the basis of checks, of a type and a frequency to be defined and documented by the manufacturer. These checks are to ensure that the raw materials remain within the tolerances specified and the composition of the finished wallcovering product remains representative as that subject to initial type testing.		
	c) All other characteristics		P
	Routine control of these characteristics shall be on the basis of checks, of a type and a frequency to be defined and documented by the manufacturer. These checks are to ensure that the raw materials remain within the tolerances specified and the construction of the finished wallcovering product remains the same as that subject to initial type testing.		P
	Control of the specified characteristics may be accomplished by indirect testing, provided correlation between the indirect test method and the characteristics can be demonstrated.		P
A.6	**Non-conforming products**		P
	The manufacturer shall have written procedures which specify how non-conforming wallcovering products shall be dealt with. Any such events shall be recorded as they occur and these records shall be kept for the period defined in the manufacturer's written procedures		P
	The checking and testing status of the wallcovering product or the wallcovering product family shall be identified by means which clearly indicate the conformity or nonconformity of the product or product family with regards to the checks and tests performed.		P
A.7	**Traceability**		P
	It is the manufacturer's, or the manufacturer's agent's, responsibility to keep full records of individual wallcovering products or product batches, including their related manufacturing details and characteristics and to keep records of to whom these products or batches were first sold.		P
A.8	**Initial inspection of factory and of FPC**		P
	Initial inspection of factory and of FPC shall generally be carried out when the production is already running and the FPC is already in practice.		P

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Clause	Requirement - Test	Result - Remark	Verdict
	It is, however, possible that the initial inspection of factory and of FPC is carried out before the production is already running and/or before the FPC is already in practice.		P
	The following shall be assessed: the FPC-documentation, and the factory		P
	In the assessment of the factory it shall be verified:		P
	a) that all resources necessary for the achievement of the component characteristics required by this European Standard are or will be available, and		P
	b) that the FPC-procedures in accordance with the FPC-documentation are or will be implemented and followed in practice, and		P
	c) that the component complies or will comply with the initial type testing samples, for which compliance with this European Standard has been verified		P
	All factories of the manufacturer, where for the product is produced and/or final testing as part of the FPC is performed, shall be visited to verify that the conditions of a) to c) are in place. One visit may cover one or more products, production lines and/or production processes. If the FPC system covers more than one products, production line or production process and it is verified that the general requirements are fulfilled when assessing one product, production line or production process, then the assessment of the general requirements does not need to be repeated when assessing the FPC for another product, production line or production process.		P
	Assessments previously performed in accordance with the provisions of this standard may be taken into account providing that they were made to the same system of attestation of conformity on the same product, of same design, construction and functionality, such that the results may be considered applicable to the product in question.		P
A.9	**Any assessment and its results shall be documented in a report.**		P
	Surveillance of the FPC shall be undertaken during an unannounced visit at least once per year unless a previous visit has shown that a lesser frequency would be acceptable. In such a case a minimum frequency for this surveillance shall be not more than 5 years. However, in case of any non-compliance of the product is found then the frequency of such visit shall be again increased to at least once per year.		P
	The surveillance of the FPC shall include a review of the FPC test plan(s) and production processes(s) for each product to determine if any changes have been made since the last assessment or surveillance. The significance of any changes shall be assessed.		P

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Clause	Requirement - Test	Result - Remark	Verdict
	Checks shall be made to ensure that the test plans are still correctly implemented and that the production equipment is still correctly maintained and calibrated.		
	The records of tests and measurement made during the production process and to finished products shall be reviewed to ensure that the performances of the stated product's characteristics obtained still correspond with those declared on the samples submitted to type testing and that the correct actions have been taken for noncompliant products.		P
Annex B	**Extended application rules within a group of product for the reaction to fire tests**		--
B.1	**Sampling**		N/A
	The samples shall be selected according to the sampling procedure as described in 5.2.2 and specified in B.2 to B.5 hereafter. The representativeness of the samples shall be ensured by selecting three different samples within a product group.		N/A
	If the whole product group or a part of it is produced on different production sites, the sampling shall be distributed among the different sites		N/A
B.2	**Product parameter having an influence on the product's fire performance of wall coverings**		N/A
	The product parameters shown in Table B.1 influence the reaction to fire performance of wall coverings. When testing a product group for initial type testing,the provisions of this table shall apply.		N/A
	Table B.1 — Product parameters influencing the reaction to fire performance of wall coverings products **Product parameters** / **Comments** Thickness / Generally, both parameters are correlated. Mass per square metre / Consequently, take the mass per square metre into account at first, whencarrying out tests for an extended application. If the results are notcorrelated, take the thickness into account separately from the mass persquare metre.		N/A
B.3	**End-use application parameters**		N/A
	The end-use application parameters shown in Table B.2 shall be applied.		N/A
	Table B.2 — End-use application parameters End-use application parametersa / Comments Substrate and underlying construction / For the substrate, apply EN 13238 and choose the appropriate substrate inaccordance with the local regulations. Mounting and fixing method / Tests shall be conducted with the adhesives recommended by the manufacturer. Joints / The ioint shall be realised according to the manufacturer'srecommendations (edge to edge, overlaid, etc.). Tests shall only be conducted with a joint either horizontal or verticaldepending on the hanging instructions of the wall covering products a Applicable when testing according to EN 13823		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
B.4	**Tests conducted according to EN 13823 intended for an extended application**		N/A
B.4.1	**Investigation of a group of product on different parameters**		N/A
	At the first step single tests shall be conducted on each parameter identified as having an influence.		N/A
B.4.2	**Usage of the test results obtained during the first step**		N/A
B.4.2.1	**The results obtained lead to the class required by the manufacturer and the parameters have no influence**		N/A
	The classification shall be obtained by an average calculation based on the results of the 3 tests.		N/A
B.4.2.2	**The results obtained lead to the class required by the manufacturer and at least one parameter has an influence**		N/A
	If at least one parameter has an influence, carry out 2 complementary tests with the couple product/parameters giving the worst results (in comparison with the obtained results). Complete the tests by the samples coming from whether the same batch or different batches.		N/A
	The classification shall be obtained by an average calculation based on the results of the 3 tests carried on the worst case.		N/A
	The reaction to fire class obtained may be applied for any product of that group of products. If the foreseen class is not obtained, then theprocedure, specified in B.4.2.3 shall be proceeded.		N/A
B.4.2.3	**The results obtained do not lead to the class required by the manufacturer and at least one parameter has an influence**		N/A
	In this case either a new investigation shall be conducted or the composition of the group of product changed.		N/A
B.5	**Tests conducted according to EN ISO 11925-2 intended for an extended application**		N/A
B.5.1	**Investigation of a group of product on different parameters**		N/A
	At the first step single tests shall be conducted on each parameter identified as having an influence. For each parameter the test shall be conducted applying the flame on the surface and on the edge		N/A
B.5.2	**Usage of the test results obtained during the first step**		N/A
B.5.2.1	**The results obtained lead to the class required by the manufacturer and the parameters have no influence**		N/A
	The classification shall be obtained by an average calculation based on the results of the 3 tests		N/A
B.5.2.2	**The results obtained lead to the class required by the manufacturer and at least one parameter has an influence**		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	The tests shall be completed by using the sample giving the worst result during the tests conducted earlier.		N/A
	The classification shall be obtained by an average calculation based on the results of the 6 tests carried on the worst case.		N/A
B.5.2.3	**The results obtained do not lead to the class required by the manufacturer**		N/A
	In this case either a new investigation shall be conducted or the composition of the group of product changed.		N/A

Summary of test results:					
No	Test items	Test methods	Requirement in EN 15102:2007 + A1:2011	Test results	Verdict
1	Vinyl chloride monomer (VCM) (mg/kg)	With reference to EN 12149:1997 Test B	Max. value 0.2mg/kg	ND	Pass
2	Heavy metals and specific elements	With reference to EN 12149:1997 Test A	Max. value in mg/kg where relevant See the following detail	See the following detail	Pass
3	Thermal conductivity (W/(m • k))	EN 12667:2001	Declared	0.0583	/
4	Thermal resistance (m^2 • K/W)		Declared	0.0557	/
Note:. ND=Not Detected (<MDL)					

1. VCM (vinyl chloride monomer)

Test Methods: With reference to EN 12149:1997, analysis was performed by HS-GC-MS

Test items	Unit	MDL	Test results	Requirement in EN15102:2019 (Max. value)
VCM (vinyl chloride monomer)	mg/kg	0.1	ND	0.2

2. Soluble heavy metals

Test Methods: With reference to EN 12149:1997, analysis was performed by ICP-OES

Test items	Unit	MDL	Test results	Requirement in EN15102:2019 (Max. value)
Soluble Lead (Pb)	mg/kg	5	ND	90
Soluble Antimony (Sb)	mg/kg	5	ND	No upper limit
Soluble Arsenic (As)	mg/kg	5	ND	25
Soluble Barium (Ba)	mg/kg	10	56	500
Soluble Cadmium (Cd)	mg/kg	5	ND	25
Soluble Chromium (Cr)	mg/kg	5	ND	60
Soluble Mercury (Hg)	mg/kg	5	ND	20
Soluble Selenium (Se)	mg/kg	10	ND	165

Remarks:
(1) 1 mg/kg = 1 ppm = 0.0001%
(2) MDL = Method Detection Limit
(3) ND=Not Detected (<MDL)

3. Thermal Conductivity & Thermal Resistance

Test Method: EN 12667:2001. Thermal performance of building materials and products. Determination of thermal resistance by means of guarded hot plate and heat flow meter methods. Products of high and medium thermal resistance.

Test Detail:

Test Equipment		Thermal Conductivity Tester Model:HFM-436/3/1
Lab Environmental Conditions		Ambient Temperature: (23±2)°C Relative humidity: (50±10)%
Test Conditioning		1) The Thickness of the test :0.377 cm 2) Mean temperature: 24°C 3) Delta: T: 12°C 4) Temperature gradient: 3596.3ºK/m
Test results	Thermal conductivity (W/(m • k))	0.0583
	Thermal resistance (m^2 • K/W)	0.0557

Photos of Product

Photo 1	
Photo 2	

*** THE END ***