

Clause	Requirement - test	Result	Verdict
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Technical Construction File

According to

Related To CE Directive(s):

R305/2011 (Regulation for the Marketing of Construction Products)

Report No.: DEU(16)-10-X2006CPR



Related To The

Product:	PVC Laminated Gypsum Ceiling Tiles
Model(S) No.:	595x595x9mm; 595x1195x9mm; 595x595x12mm; 595x1195x12mm; 595x595x7mm; 595x595x8mm; 1200x600mm; 600x600mm; 603x603mm; 1213mmx603mm;
DATE:	Oct. 20th,2016

Presented By

SHANDONG HUAQIN BUILDING MATERIAL CO.,LTD
Wanzhuang Industrial Park,Pingyi County, Linyi city, Shandong China.

Issued By


Deu Technology Testing Co.,Ltd.
 Floor 11, Xinhua Building, Block 22, No.33 Tianhe Road, Guangzhou, China

Reviewed by: *Honer Xu*

Approved by: *Fego Liu*

Clause	Requirement - test	Result	Verdict
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CE Marking :

 16		
EN 13964:2014		
SHANDONG HUAQIN BUILDING MATERIAL CO., LTD. Wanzhuang Industrial Park, Pingyi County, Linyi city, Shandong China.		
MADE IN CHINA		
Emission of formaldehyde	EN 717-1 EN 717-3	E1
Slipperiness	EN 1339	/
Thermal conductivity if necessary	EN 12524	/
Biological durability	EN 335-1& EN 335-2	/
Breaking strength	EN 1533	/
Reaction to fire	EN 13501-1	/

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CE REPORT

Report

Report reference No: DEU(16)-10-X2006CPR

Reviewed by (+ signature): Honer Xu

Date of issue.....: Oct. 20th, 2016

Number of pages (Report).....: 15

Name and address of the Applicant

Name: SHANDONG HUAQIN BUILDING MATERIAL CO., LTD.

Address.....: Wanzhuang Industrial Park, Pingyi County, Linyi city, Shandong
China.

Test item

Description: PVC Laminated Gypsum Ceiling Tiles

Model and/or type reference.....: 595x595x9mm; 595x1195x9mm;

595x595x12mm; 595x1195x12mm;

595x595x7mm; 595x595x8mm;

1200x600mm; 600x600mm;

603x603mm; 1213mmx603mm;

Manufacturer name: SHANDONG HUAQIN BUILDING MATERIAL CO., LTD.

Address.....: Wanzhuang Industrial Park, Pingyi County, Linyi city, Shandong
China.

Issuer

Name.....: DEU TECHNOLOGY TESTING CO., LTD.

Address: 11F XINHUA BUILDING, BLOCK 22, NO.33 TIANHE ROAD,
GUANGZHOU, CHINA

test case verdicts

Test case does not apply to the test object.....: N (Not Applicable)

Test item does meet the requirement: P (Pass)

Test item does not meet the requirement: F (Fail)

Clause	Requirement - test	Result	Verdict
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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 object 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(Aluminum Ceiling Panel)complied with the requirement of standard:

EN 13964:2014

Brief description of the tested sample(s):

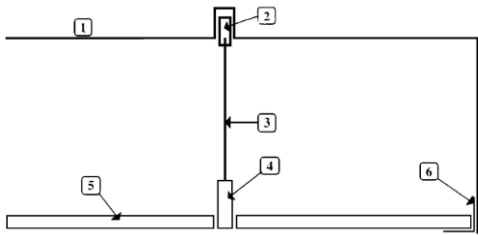
Ambient temperature: 22°C, humidity: 52%

General product information:

Description..... : PVC Laminated Gypsum Ceiling Tiles

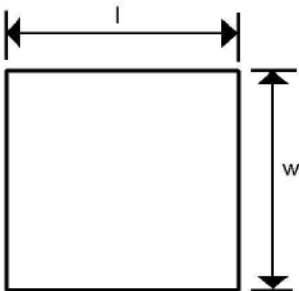
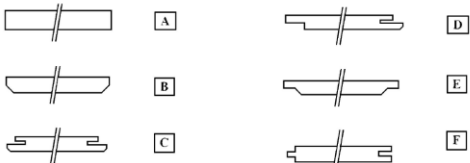
Sample used for testing(Model)..... : 595x595x9mm ; 595x1195x9mm; 595x595x12mm;
595x1195x12mm; 595x595x7mm;595x595x8mm; 1200x600mm; 600x600mm; 603x603mm;
1213mmx603mm;

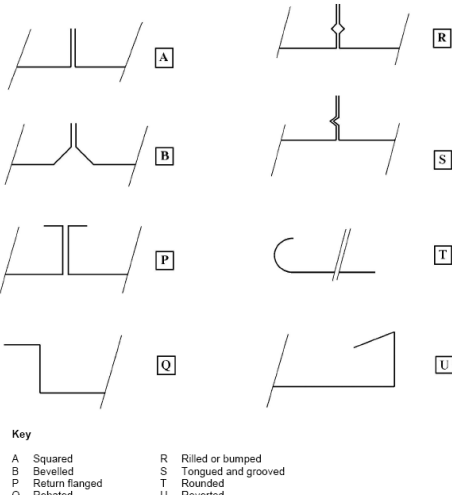
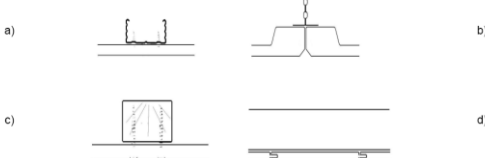
Model and/or type reference..... : 595x595x9mm ; 595x1195x9mm; 595x595x12mm;
595x1195x12mm; 595x595x7mm;595x595x8mm; 1200x600mm; 600x600mm; 603x603mm;
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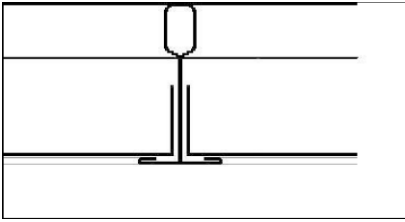
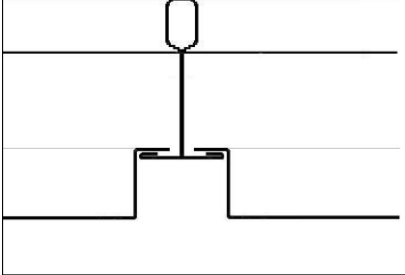
Clause	Requirement - test	Result	Verdict
CONTENTS			
1	Scope	-	-
2	Normative references	-	-
3	Terms and definitions	-	-
3.1	General	-	-
3.1.1	Ceiling construction covering the underside of a floor or roof, providing the overhead surface	-	P
3.1.2	Suspended ceiling ceiling hung by a suspension from or by a directly fixed substructure or perimeter trim to the load bearing structure (floor, roof, beam and walls) at a distance from the floor or roof above	-	P
3.1.3	Suspended ceiling for interior application application not exposed to outside weather conditions (wind, rain, humidity, pollution, etc.)	-	P
3.1.4	Suspended ceiling kit set of at least two separate components that need to be put together to be installed permanently in the works. Although the components of the kit may be produced by more than one manufacturer, it has to be placed on the market in a way that enables it to be purchased in one transaction	-	P
3.1.5	Assembled suspended ceiling system	-	-
	 <p>The diagram illustrates a cross-section of a suspended ceiling system. It shows a horizontal line representing the load-bearing structure (1). A vertical line represents the top fixing (2) which connects to a supporting member (4). A suspension (3) connects the top fixing to the supporting member. A perimeter trim (5) is attached to the supporting member. A ceiling membrane component (6) is attached to the perimeter trim.</p>	<ul style="list-style-type: none"> a. Load bearing structure b. Top fixing c. Suspension d. Supporting member e. Ceiling membrane component 	P

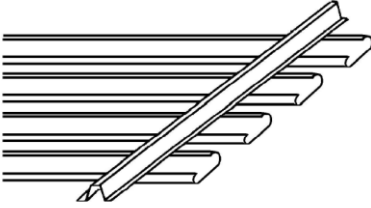
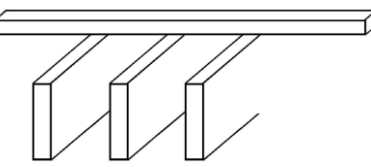
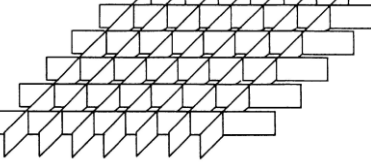
Clause	Requirement - test	Result	Verdict
3.1.6	Designer/manufacturer/supplier	-	-
	Person/organisation responsible for demonstrating conformity of the component(s)/kit(s) with the requirements of this standard.		P
3.2	Suspended ceiling and substructure components (see Figure 1)		-
3.2.1	General		
3.2.1.1	Substructure		
	Suspending frame that supports the ceiling membrane. May be a complete kit or made up of individual components. There are three types of substructure:		P
3.2.1.2	Exposed substructure substructure whose underside is exposed		P
3.2.1.3	Concealed substructure substructure whose underside is not exposed		P
3.2.1.4	Semi-concealed substructure substructure where the underside is exposed in one direction and the intermediate profiles, which are at an angle to the support profiles, are concealed		P
3.2.1.5	Suspension component part of the substructure, connecting it to the load bearing structure		P
3.2.2	Fixing, connections and supports		P
3.2.2.1	Top fixing fixing which connects the suspension components or the substructure directly to the load bearing structure		P
3.2.2.2	Perimeter trim fixing, including corridor fixing fixing which connects the perimeter trim directly to the load bearing structure		P

Clause	Requirement - test	Result	Verdict
3.2.2.3	<p>Sub-structural connection fixing component used to connect the anchoring component, suspension component, substructure and ceiling membrane component</p>		P
3.2.2.4	<p>Supporting member suspended component of the substructure with direct connection to the suspension component or directly fixed component</p>		P
3.2.2.5	<p>Cross/secondary supporting component component of the substructure which spans between two supporting components and with a direct supporting function for the ceiling membrane component</p>		P
3.2.2.6	<p>Perimeter trim section fixed at the perimeter of the ceiling to support the components of either the substructure or the ceiling membrane, or both, or fixed to and carried by the ceiling membrane itself</p>		P
3.2.2.7	<p>Access component component of the substructure or of the substructure and membrane component with a special access facility to enable a particular part of the ceiling membrane to be removed</p>		P
3.2.2.8	<p>Splice Mechanical connection between substructure sections</p>		P
3.3	<p>Ceiling membranes and ceiling membrane components</p>		P
3.3.1	<p>Ceiling membrane exposed surface of the ceiling facing the room, excluding any exposed substructure</p>		P

Clause	Requirement - test	Result	Verdict						
3.3.2	Ceiling membrane exposed surface of the ceiling facing the room, excluding any exposed substructure		P						
3.3.3	volume membrane component Component of which the edges are shaped within the full material thickness (see Figure 3)		P						
3.3.4	Thin gauge membrane component component of which the edges are achieved by forming the basic sheet material (see Figure 4) and where the thickness permits permanent forming		P						
3.3.5	Tile square or rectangular component with the length (l)/width (w) ratio within the range $1 < l/w < 2$ (see Figure 2)		P						
3.3.6	Plank rectangular component with the length (l)/width (w) ratio within the range $2 < l/w < n$ (see Figure 2)		P						
3.3.7	linear component component of relatively narrow width (w) and of which the length (l) is generally made to measure (see Figure 2)		P						
		L:60.1 mm W:60.1 mm Thickness: 0.1 mm	P						
	 <p>Key</p> <table border="0"> <tr> <td>A Squared</td> <td>D Rebated and grooved</td> </tr> <tr> <td>B Bevelled</td> <td>E Rebated</td> </tr> <tr> <td>C Grooved</td> <td>F Tongued and grooved</td> </tr> </table>	A Squared	D Rebated and grooved	B Bevelled	E Rebated	C Grooved	F Tongued and grooved	Typical edge details of volume ceiling membrane components	P
A Squared	D Rebated and grooved								
B Bevelled	E Rebated								
C Grooved	F Tongued and grooved								

Clause	Requirement - test	Result	Verdict
	 <p>Key</p> <p>A Squared R Rilled or bumped B Bevelled S Tongued and grooved P Return flanged T Rounded Q Rebated U Reverted</p>	<p>Typical edge details of thin gauge ceiling membrane components:A</p>	<p>P</p>
<p>3.4</p>	<p>Typical suspended ceiling assemblies using volume or thin gauge materials</p>		<p>P</p>
<p>3.4.1</p>	<p>Suspended ceiling systems with boards fixed on the substructure assembly with type A, B or F shaped edges (see Figure 3) where the boards are fixed on the substructure (concealed substructure). The boards are butted and can be visible or jointed (not visible = jointless surface) (see Figure 5)</p>		<p>P</p>
		<p>Examples for possible designs with boards fixed on the substructure</p>	<p>P</p>
<p>3.4.2</p>	<p>Suspended ceiling assembly with various edge types (A, B, C, D, E – see Figure 3) for volume gauge materials and with type A and Q (see Figure 4) edges for thin gauge materials assembly in which different edge types are used (see Figure 6 that shows very common applications of how these systems are implemented). The substructure can be exposed, semi-concealed or concealed</p>		<p>P</p>

Clause	Requirement - test	Result	Verdict
		Examples for possible designs with various edge types	P
3.4.3	Lay-in suspended ceiling system assembly with Type A or Type P shaped edges (see Figure 4) that is supported by an exposed substructure (see Figure 7)		P
			P
3.4.4	Rebated lay-in suspended ceiling system assembly with Type Q edges (see Figure 4), supported by an exposed substructure (see Figure 8)		P
			P
3.4.5	clip-in suspended ceiling system assembly, normally with Type R edges (see Figure 4) that are clipped onto a concealed substructure (see Figure 9)		P
3.4.6	hook-on suspended ceiling system assembly, one side of which has Type Q edge and the opposite side has a Type U edge (see Figure 4) supported by a concealed substructure (see Figure 10)		P

Clause	Requirement - test	Result	Verdict
3.4.7	hook-on suspended ceiling system assembly, one side of which has Type Q edge and the opposite side has a Type U edge (see Figure 4) supported by a concealed substructure (see Figure 10)		N
3.4.8	baffle assembly of vertical membrane components installed at a certain distance from each other (see Figure 12)		N
3.4.9	open cell membrane component in grid form (see Figure 13)		N
4	Requirements		--
4.1	Material and products – General		--
	The materials and products used in the construction of suspended ceilings/ ceiling linings shall comply with requirements of this European Standard.		P
4.2	Modular dimensions		--
	The plan dimension of suspended ceiling; substructure and membrane components should be based on modular co-ordination as standardized in ISO 1006.		P
4.4	Safety in case of fire		--
4.4.2	Reaction to fire		--
4.4.2.1	General		--
	The provisions of this clause are valid in those Member States that accept a material-based testing approach. Member States where a full scale testing approach is required, the suspended ceiling shall be tested according the provisions valid in those countries.		P

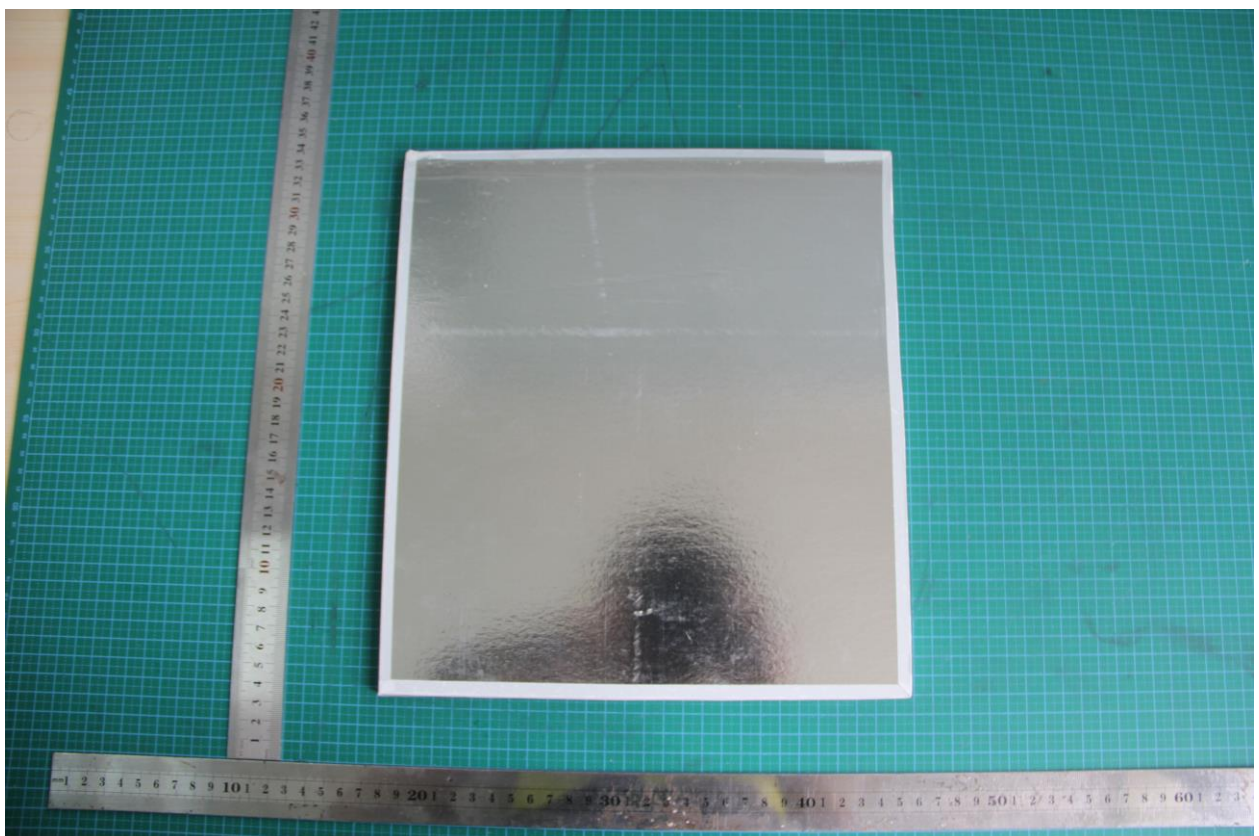
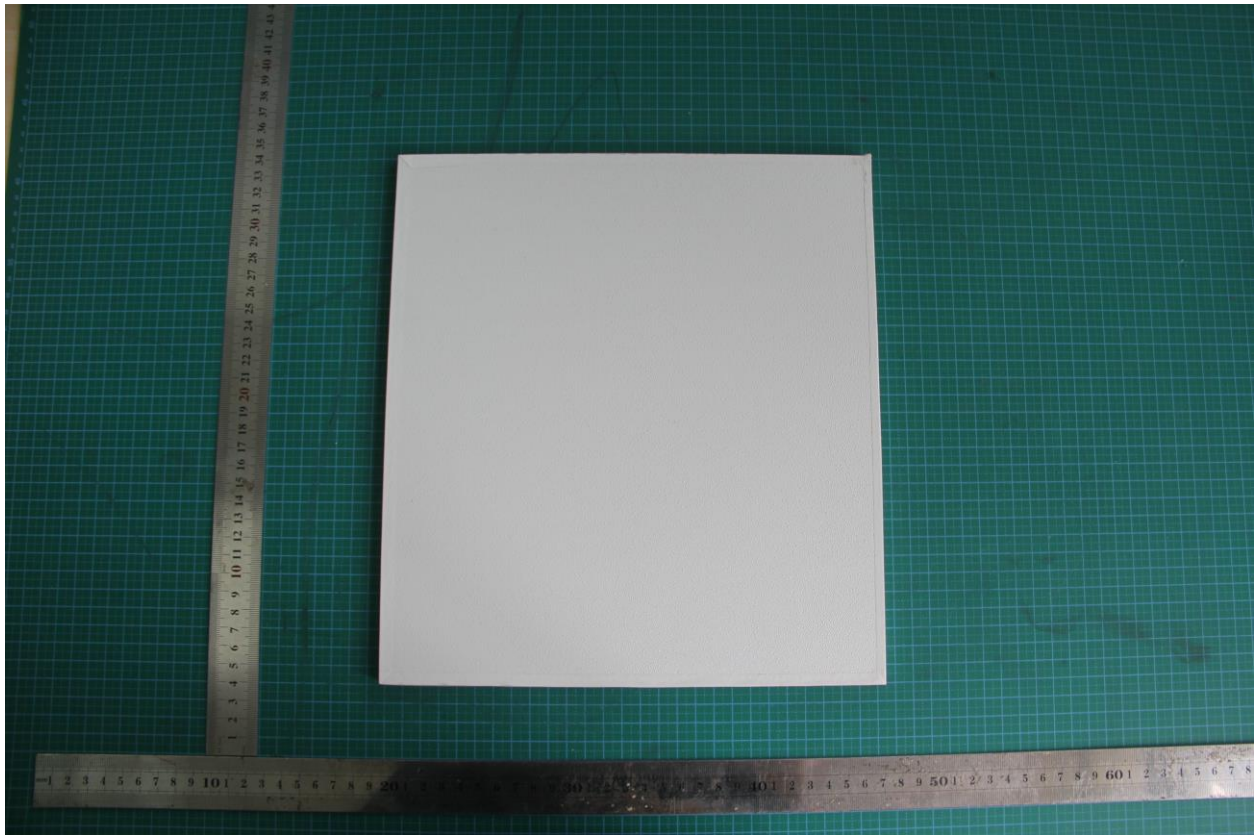
Clause	Requirement - test	Result	Verdict
	Reaction to fire testing and classification shall be based on the performance of each component making up ceiling, which shall be stated separately in the results. Where a substructure kit, substructure component or membrane component are sold separately, these are also subject to testing and classification.		P
4.4.2.2	Membrane components		--
	Four possible options in relation to ceiling membranes may exist:		P
	a) The membrane is used as it is, with no addition of products above it when installed;		--
	b) The membrane is sold together with a defined insulation or other material to be installed above the membrane'		--
	c) The ceiling is intended to have insulation or other material added during installation; the ceiling produce specifies the type of insulation but does not supply it with the ceiling;		--
	d) The ceiling is intended to have insulation or other material added during insulation but the ceiling produce does not specify or know the type and does not supply it with the ceiling		--
4.5	Hygiene, health and environment – Toxic gasses and dangerous substances		--
4.5.1	Asbestos content		--
	No part of a ceiling shall contain asbestos.		P
4.5.2	Formaldehyde release		--
	Where formaldehyde-containing material is added to any of the components of the ceiling as a part of the production procedure, the component shall be tested		P

Clause	Requirement - test	Result	Verdict
	and classified into one of two classes: E1 or E2. The classes and related test methods are given in Annex E		
4.6	Safety in use		--
4.6.1	Shatter properties		--
	Where membrane components are made of materials for which shatter properties or safe breakage are required (e.g. glass), the performance of the membrane in case of shattering or breakage shall be determined according to EN 12600. This requirement may also be satisfied if membrane components have already been assessed according to the provisions of other European Standards, where available.		P
4.6.2	Flexural tensile strength		--
	The membrane shall have sufficient strength to support its own mass when installed in the substructure. When an additional load is to be applied, the ceiling designer has to state where and how this load can be applied and how much this load is. In addition to the minimum requirement that the membrane shall not fall out, it shall be of adequate strength to ensure that aesthetic properties (in particular flatness and bow) are maintained. Where relevant, adequate flexural tensile strength shall be determined, due account being taken of the span of the membrane component, any openings which may be made in it, and any load (in addition to its self weight) that may be attached to the membrane. Where relevant, tests designed to assess the flexural tensile strength shall be performed according to Annex F, on a representative sample of the membrane material, account also being taken of the end use design (flexural tensile strength does not apply to all membrane materials). The result of the test shall be declared as one of the classes of deflection of Table 6 in combination with one of the classes of exposure of Table 7 and the applied load.		P
4.8	Durability		--

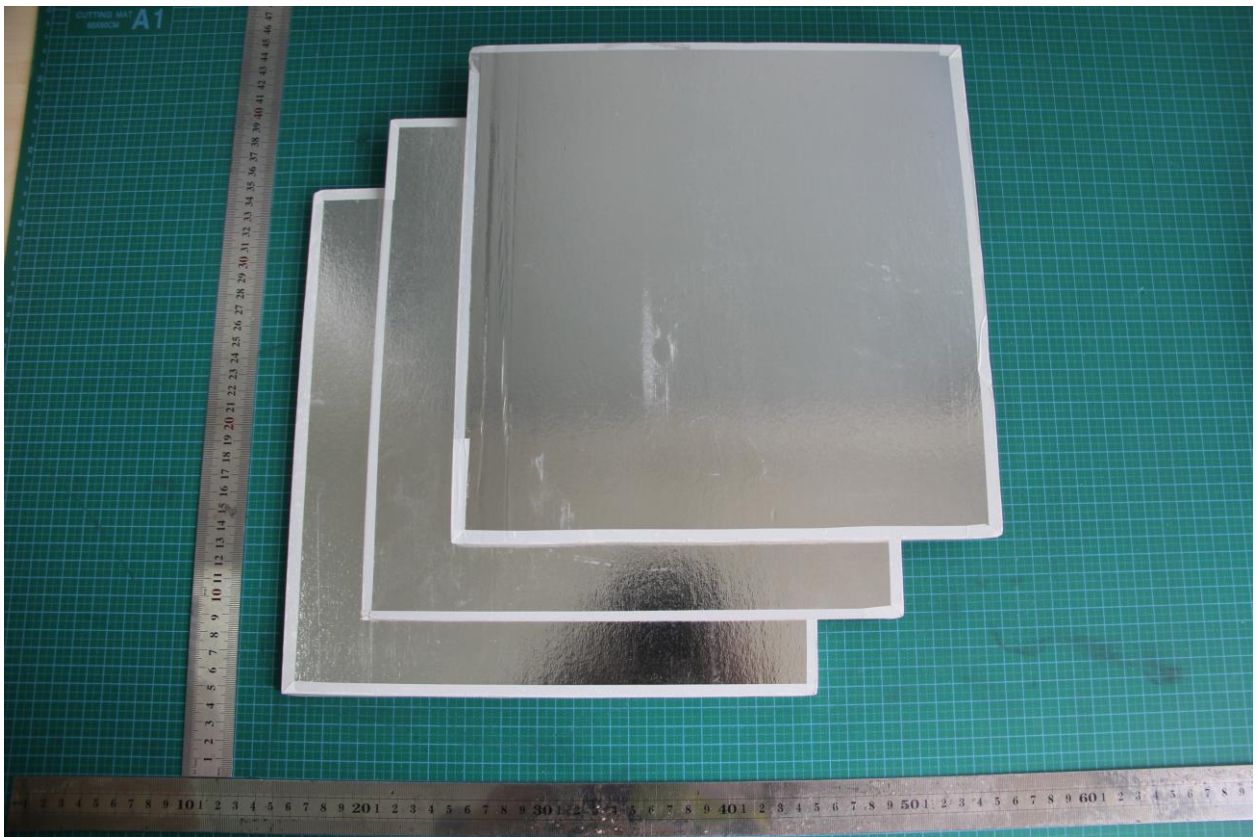
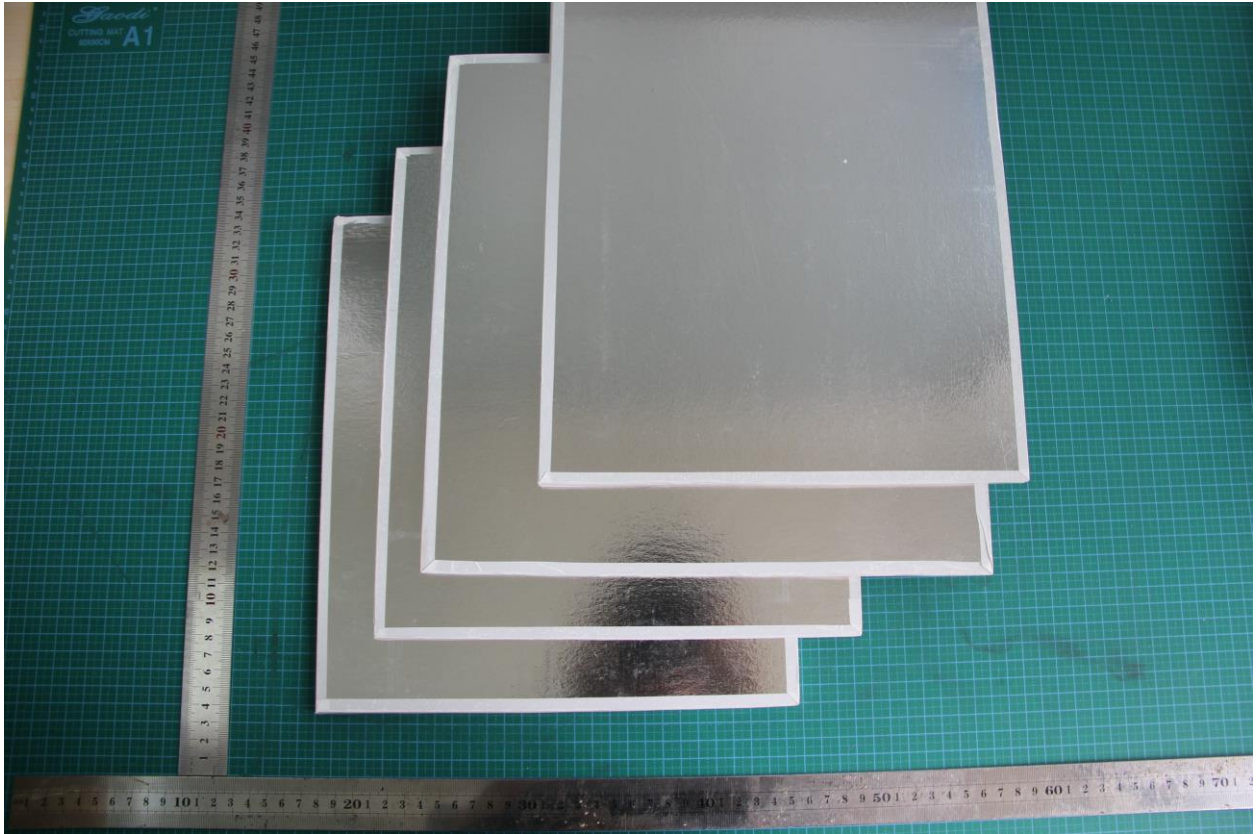
Clause	Requirement - test	Result	Verdict
4.8.1	Dampness		--
	Suspended ceilings shall be designed to ensure that detrimental levels of water and condensation are not formed within or on the surfaces of the ceiling and related building components, during the intended working life of the ceiling, in ways which could lead to a loss of flexural tensile strength of the membrane and/or loss of load bearing capacity of the whole suspended ceiling kit or the substructure. Thermal insulation/dew-point calculations, in accordance with ISO 6946 and ISO 10211-1, shall be made to demonstrate that the conditions producing such effects are avoided.		P
4.8.2	Service life requirements		--
	The suspended ceiling shall retain its performance properties during its service life when exposed to the conditions for which it was designed, subject to receiving normal maintenance, as recommended by the designer and not subject to ill treatment during its life.		P
7.	Marking, labelling and packaging		--
7.1	Making and labelling		--
	Each product shall be clearly and indelibly marked by the manufacturer either directly on the product or on the package or by a label with the following information, or on the accompanying commercial documents		P
7.2	Packaging		--
	Where used, the packaging shall allow the product to be transported and delivered without damage.		P

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PICTURES OF SAMPLES



Clause	Requirement - test	Result	Verdict
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Clause	Requirement - test	Result	Verdict
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EC Declaration of conformity

Applicant Name: SHANDONG HUAQIN BUILDING MATERIAL CO., LTD.

Address.....: Wanzhuang Industrial Park,Pingyi County, Linyi city, Shandong China.

Manufacturer name: SHANDONG HUAQIN BUILDING MATERIAL CO., LTD.

Address.....: Wanzhuang Industrial Park,Pingyi County, Linyi city, Shandong China.

Product Name:: PVC Laminated Gypsum Ceiling Tiles

Model and/or type reference: 595x595x9mm ; 595x1195x9mm; 595x595x12mm; 595x1195x12mm;
595x595x7mm;595x595x8mm; 1200x600mm; 600x600mm; 603x603mm; 1213mmx603mm;

The product has been assessed by the application of the following standards:

EN 13964:2014 Suspended ceilings - Requirements and test methods

Related to CE Directive(s): R305/2011 (Regulation for the Marketing of Construction Products)

Issue place and date

Company stamp and Signature of authorized person

*****END OF REPORT*****