

한국에너지기기산업진흥회

(www.eaa.or.kr)

우 15204/경기도 안산시 상록구 장하로 300/전화 (031)480-2981/전송 480-2986/담당 : 허 빈

문서번호 에산진 860 - 17/

시행일자 2021. 06. 16

수 신 호야홈텍(주) 대표이사

참 조

제 목 시험성적서 재발급 통보

1. 귀사의 무궁한 발전을 기원합니다.

2. 귀사에서 2021년 6월 10일 재발급 신청(접수 No.A21-113)한 온수 난방용 바닥 패널에 대한 시험성적서를 첨부과 같이 송부합니다.

첨 부 : 온수 난방용 바닥 패널 시험성적서 1부. 끝.



한국에너지기기산업진흥회



KEAA TEST REPORT

KOREA ENERGY APPLIANCES INDUSTRY ASSOCIATION

300, Jangha-ro, Sangnok-gu, Ansan-si,
Gyeonggi-do, Korea
Tel: +82-31-480-2981 Fax : 031-480-2986

Report No.:

KEAA21-141(R)

page(1)/(6)Pages



1. Client

- o Name : HOYA HOMETECH Co., Ltd.
- o Address : 937, Oehang-ro, Gunsan-si, Jeollabuk-do, Korea
- o Date of Receipt : February 16, 2021

2. Sample Description : Floor panels for hot water heating (Model : HOYA ONDOL)

3. Receipt No. : A21-26

4. Date of Test : February 16, 2021 ~ March 5, 2021

5. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

(Address : 300, Jangha-ro, Sangnok-gu, Ansan-si, Gyeonggi-do, Korea)

6. Test method used : Floor panels for hot water heating (KS B 8025 : 2019)

7. Test Results : Refer to an attachment test result

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

[This test report is the English version of No. KEAA21-141 (Date of issue : March 8, 2021).]

Affirmation	Tested by	Technical Manager
	Name : Been, Heo (Signature)	Name : In Mok, You (Signature)

June 15, 2021

Korea Energy Appliances Industry Association



TEST RESULT

Receipt No. : A21-26

Serial No. of Issue :
KEAA21-141(R)
page(2)/(6)Pages



TEST ITEM		Test Result (SAMPLE NO)	NOTE
		N - 1	
Head loss	Shall be within the manufacturer's indication (kPa).	3	3
Temperature rise after operation	Shall be within the manufacturer's indication (The time required).	43 minutes	3
Surface temperature distribution	The difference between high temperature and low temperature on the upper surface of the hot water panel shall be within 5 K.	3	-
Radiant heat capacity	Shall be more than manufacturer's indication ($J/m^2 \cdot s$)	146	3
Deformation by heating repetition	No crack, shrinkage, expansion, condensation, etc.	None	-
Flatness	The warpage shall be less than 5 mm.	3	-
Load	There shall be no crack in use, and flushness between two adjacent panels shall be within 1 mm.	Crack	None
		Flushness	1
Pressure resistance	No deformation and leakage.	None	-
Impact resistance	No deformation, crack, damage and leakage in use.	None	-
Local compression	There shall be no dent, leakage, etc., and deformation shall be within 5 mm and the residual deformation shall be within 2 mm.	Dent, leakage	None
		Deformation	5
		Residual deformation	1
Corrosion resistance	No rust, bulge and delamination.	N/A	4

Note : 1. This report is results for sample submitted by the client, so this report have not
representation for entire products.

2. Duplicate of the testing certificate to be ineffective, and re-issuance of the
certificate shall meet with president's approval.

TEST RESULT

Receipt No. : A21-26

Serial No. of Issue :
KEAA21-141(R)
page(3)/(6)Pages



3. Sample specifications (manufacturer's indication)

Sample name		N - 1
Product name		Floor panels for hot water heating
Model		HOYA ONDOL
Classification by construction method of heating pipe		Single type
Classification by the presence of upper finishing materials		Separated finishing material
Head loss (kPa)		5
Temperature rise time after operation (minute)		50
Radiant heat capacity (J/m ² · s)		130
Panel	Top plate (mm)	New composite materials (mixed with polypropylene, carbon, etc.) (500 x 500 x 6)
	Bottom plate (mm)	New composite materials (mixed with polypropylene, carbon, etc.) (500 x 500 x 20)
Heating pipe	Type	PE-RT
	Size (mm)	Outside diameter : 16 Inside diameter : 12
	Length of test room installation (m)	82
Pipe pitch spacing (mm)		170
Insulation	Type	Aluminum foil laminated non-woven fabric
	Thickness (mm)	1.7
Foam peanut	Type	Polyethylene
	Size (mm)	length : 30 Diameter : 20
Manufacturer		HOYA HOMETECH Co., Ltd.



TEST RESULT

Receipt No. : A21-26

Serial No. of Issue :
KEAA21-141(R)
page(4)/(6)Pages

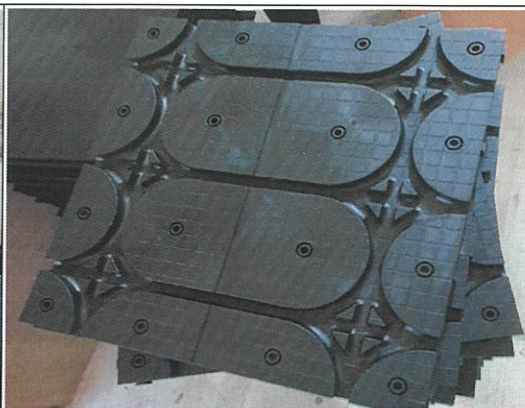


4. This sample does not contain metal materials.

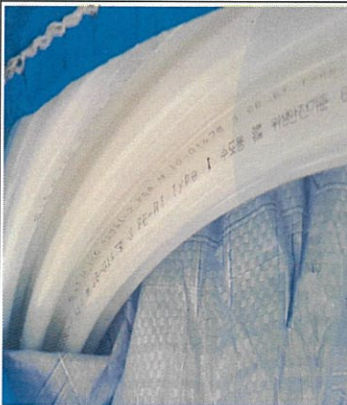
5. Sample appearance



Panel top plate



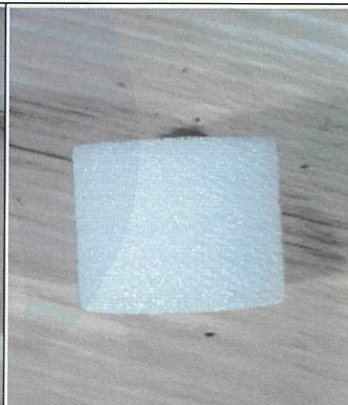
Panel bottom plate



Heating pipe

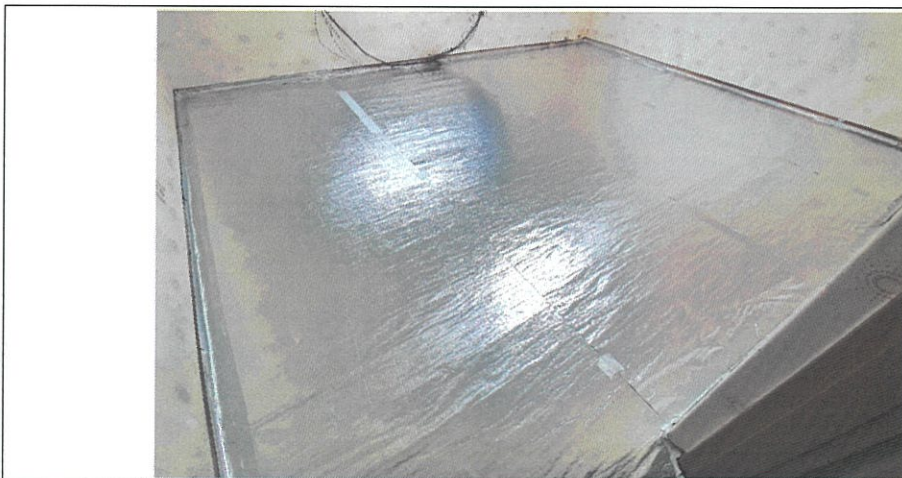


Insulation



Foam peanut

6. Installation sequence



1. Install the insulation

TEST RESULT

Receipt No. : A21-26

Serial No. of Issue :
KEAA21-141(R)
page(5)/(6)Pages



6. Installation sequence (Continued)



2. Install the panel bottom plates



3. Install the heating pipe



4. Insert the foam peanuts on edges

TEST RESULT

Receipt No. : A21-26

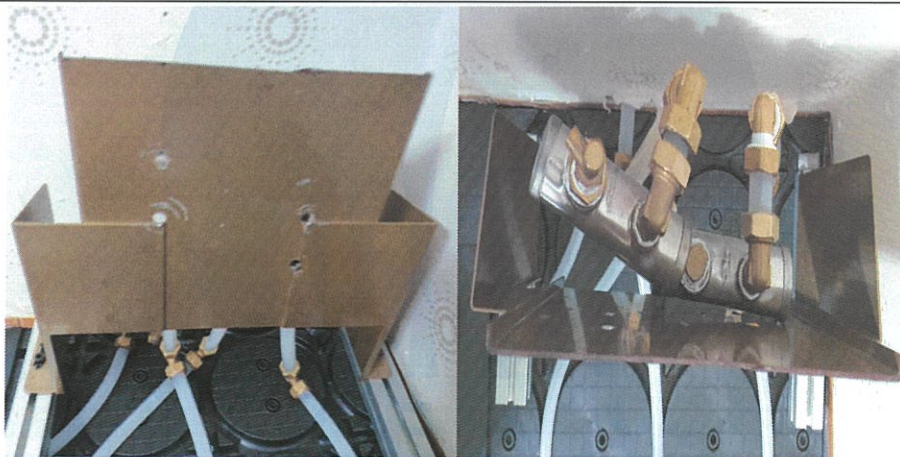
Serial No. of Issue :
KEAA21-141(R)
page(6)/(6)Pages



6. Installation sequence (Continued)



5. Install the panel top plates



6. Install the separator (2 port)

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