





# HEAT PLUS



## Company Info

SEGGI CENTURY CO., LTD.

Company Name: Seggi Century Co., Ltd.

CEO: Hun-Kyu Park

Category: Heating film manufacture

Address:

94 Yeonam-gil, Chongpyeong-myeon,  
Jincheon-gun, Chungbuk-do, S. Korea

Tel: +82-43-838-1911



## Manufacturing Factory



## Company History

### 2017

- Started to export to Vietnam
- Japan PSE certification
- HEAT PLUS PTC Heating Film launched
- Patents Registration:  
"Plane heater with power supplier"
- Purchased second factory site

### 2016

- Additional development and supply of heating film for industrial use of Samsung Heavy Industries
- 'Shielding Heat Insulator' released
- Patents Registration:  
"Multichannel plane heater controller"  
"Window-type blinds with plane heater"  
"Harmful current removal insulating material and manufacturing method of plane heater with it"

### 2015

- Participated in  
-Kyunghyang Housing Fair  
-Russia MosBuild  
-Belgium, Germany, Lithuania Exhibition
- Re-selected as Promising Export Medium and Small Size Business
- Started to export heating film to Netherlands, Turkey, Bulgaria, United Kingdom, Mexico, Brazil
- Patents Registration:  
"Length adjustable connection terminal for connecting electrode of plane heater"  
"Plane heater comprising carbon fabric"  
"Plane heater comprising heat cushion material and manufacturing method"
- Started to export heating film to U.S.A

## Company History

### 2014

- Selected as national policy subject in Aug. 2014 (developing the conductive ink manufacture technology for all coated heating element use.)
- Patent registration for all coated heating element and the manufacture method using hardening type carbon ink and adhesive
- The branch in Japan joined international house industry fair that have been held in Beijing, China
- Released Heat Plus DIY kit
- Released Half thermostat(HP-HALF): Exclusive for only Seggi Century Co., Ltd.
- Renewed UL for SPN-305 model
- Selected as excellent company at Seoul international Building Fair
- Started to export heating film to Poland
- Ranked as the top for the market share of heating film in Greece

### 2013

- All Coated Film APN-410, APN-405, APH-410, Stripe Coated Film SPH-305 launched
- Selected as a CLEAN business place, Company annexed Laboratory acknowledged
- Export to France, Lithuania, Estonia, Latvia
- Selected as a subcontractor of "Samsung Heavy Industry"
- A store is entered in the biggest European Building Materials Mart of Germany origin "Praktiker"
- Participated in Exhibition
  - Japan Tokyo Housing Fair
  - China Domotex
  - China CANTO FAIR
  - China ISH CHINA Air conditioning and Heating Fair
  - Russia SibBuild, MosBuild, BalticBuild Fairs
  - Latvia Bustas 1, Ryga Fair
  - Estonia EstBuild, Tallinn Fair
  - Lithuania RESTA 2013, Vilnius Fair
  - Czech Construction / Building Fair, Bmo Fair
  - MBC Construction Expo

## Company History

### 2011~2012

- Designated as a Venture company in 2011
- Participated in:
  - the 109<sup>th</sup>, 110<sup>th</sup>, 111<sup>th</sup> China Import and Export Fair (CANTON), in Korean Pavilion, Guangzhou, China
  - Build Décor, Shanghai, China
  - Home & Building Show in Japan
  - Architectural Expo in Moscow, Russia
  - Architectural Expo in Prague, Czech Republic
  - International Energy Saving Expo
  - Kyunghyang Housing Fair
  - MBC Architectural Expo
- Started to export heating film to Italy, Greece, Azerbaijan

### 2010

- Selected as Promising Export Medium and Small Sized Business in Chungcheongbuk-do
- PSE(JET) Certification, Japan
- Participated in:
  - MBC Architectural Expo
  - Japan Home & Building Show
  - Architectural Expo in Khabarovsk, Russia
  - the 108<sup>th</sup> China Import and Export Fair(CANTON), IN Korean Pavilion, Guangzhou, China
- -Started to export heating film to Germany, Ukraine, Belarus, Kyrgyzstan

### 2005~2009

- 2005
  - Established
- 2007
  - Started to export to Mongolia
- 2008
  - Incorporation, Seggi Century Co., Ltd.
  - Establishment of Beijing Branch Office in China
  - KICM certification
  - ISO9001 certification
  - CE certification
- 2009
  - GOST(Russia) certification
  - Establishment of WeiHai Branch Office in China
  - RoHS Certification
  - Started to export to Japan (first in Korea), Russia, Turkey, UK, etc

# Product Introduction

1. All Coated Type
2. Stripe Type
3. PTC



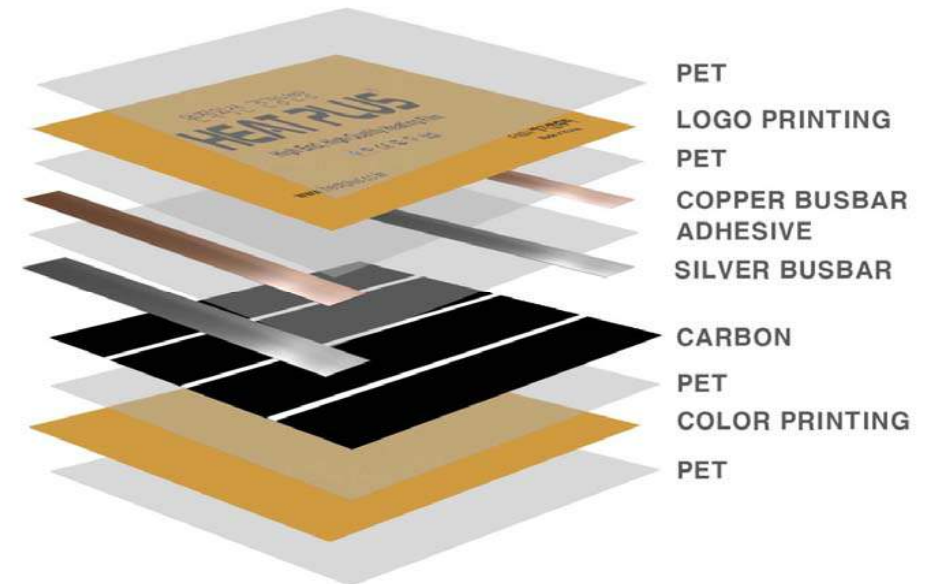


# New All Coated Heating Film

# HEAT PLUS



HP-ACN-405,408,410



Structure diagram

It has a safe structure to prevent sparks and defects in products by forming silver electrodes after carbon printing.



# All Coated Heating Film for sauna (High wattage)



**APH-410**

It has excellent moisture resistance and durability as specially insulated with curing type adhesive and does not contact with air and moisture.

# All Coated Heating Film

**HEAT PLUS**



Samsung Heavy Industries



Export to Japan

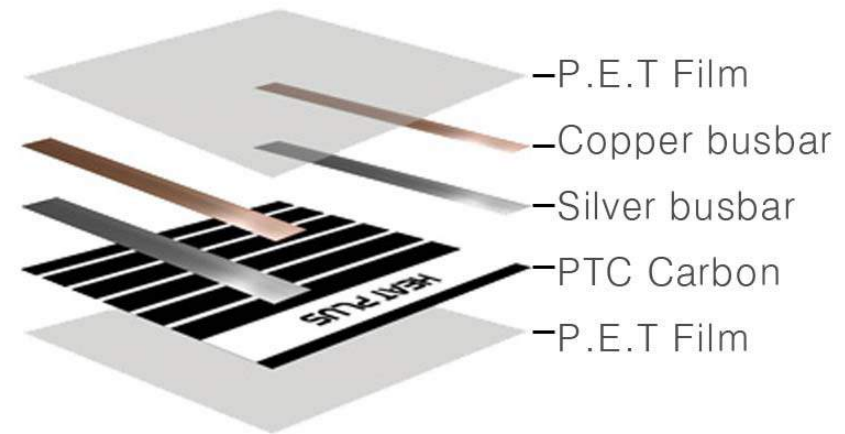
# Stripe Heating Film

**HEAT PLUS**



## SPN-305, 308, 310

An off-white insulative PET film, it pursues hard and stable carbon print surface compared with other transparent PET film.



## Structure diagram

Special design of silver electrode prevents sparking at electrode.

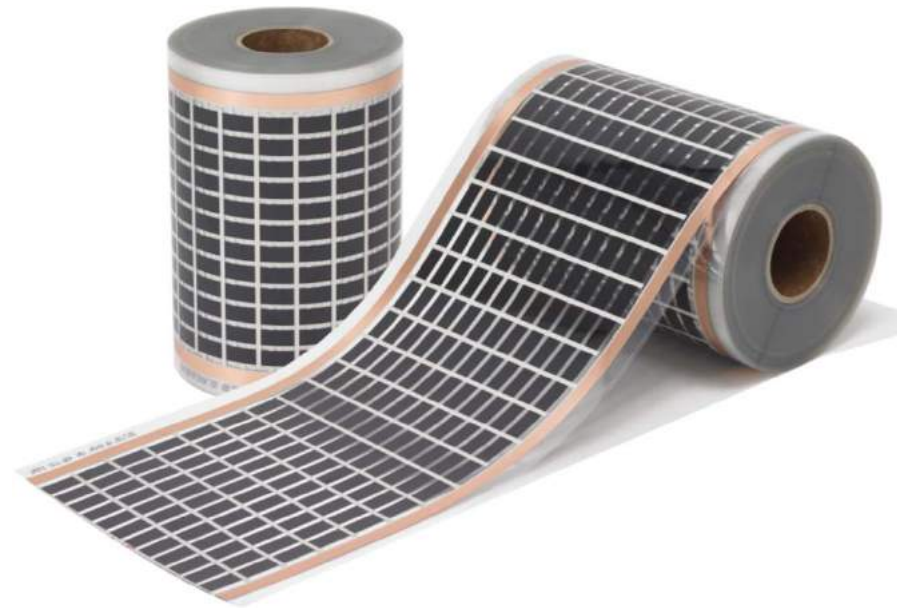


# Stripe Heating Film

**HEAT PLUS**



Heating Film for Exporting



Stripe Heating Film for DC  
(SPN-303)

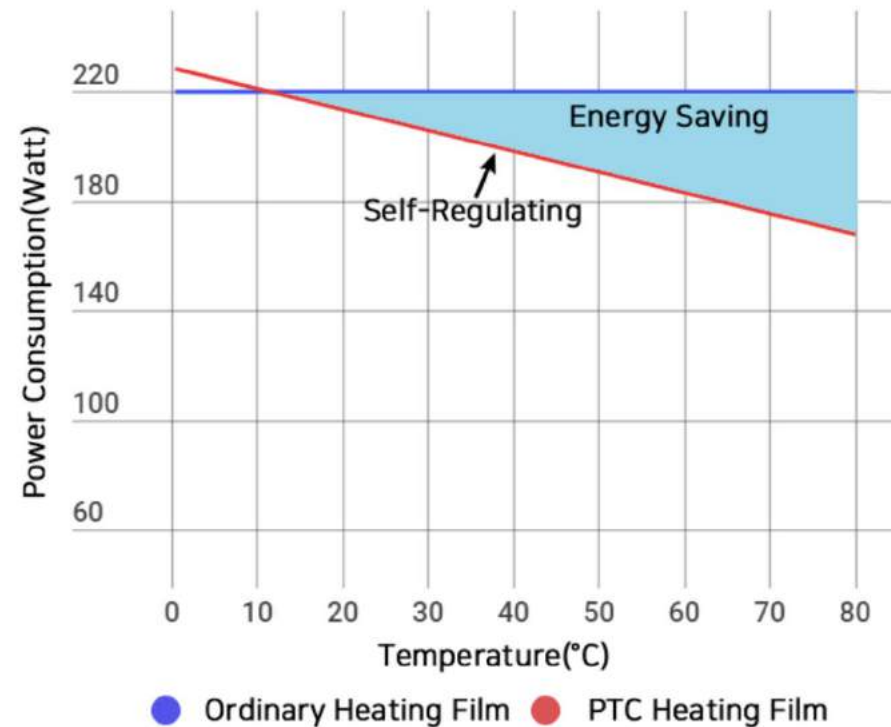
# PTC Heating Film



**SPP-305, 308, 310**

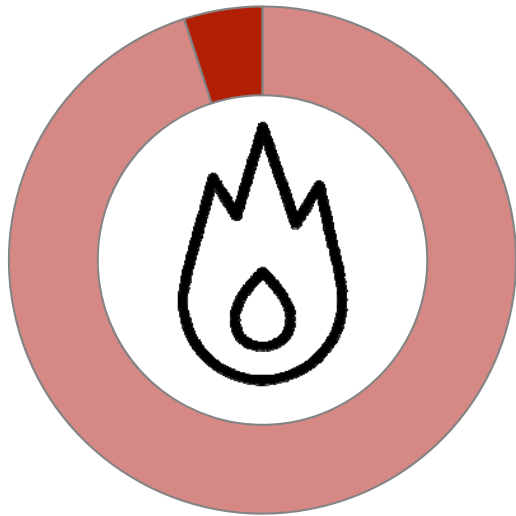
HEAT PLUS PTC Heating Film controls power consumption by itself when temperature changes. It prevents overheating and safer.

Resistance of HEAT PLUS PTC Heating Film increases as temperature goes up. While resistance increases, power consumption decreases, as a result, Heating Film generate less fever. So, it prevents overheating.



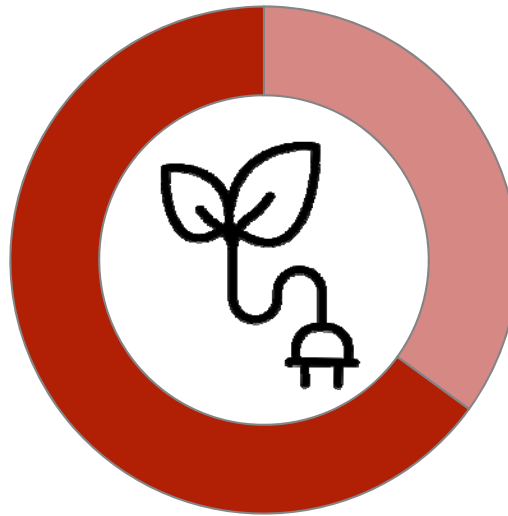
Changes of power consumption as temperature of heating film increases

# Advantage of PTC Heating Film



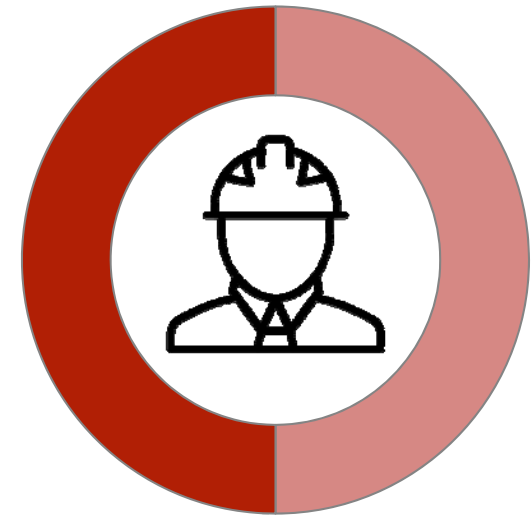
## Safer Heating

Heat Plus PTC Heating Film prevents overheating with its special characteristic of controlling power consumption as temperature changes.



## Saving Money

Heat Plus PTC Heating Film saves more than 20% of electric costs, because it consumes less power as temperature goes up.



## Same Installation

Heat Plus PTC Heating Film can be installed same as ordinary heating film. Therefore, everyone can install easily.



## Standards & Specifications

	Model	Width	Thickness	Packing unit	Weight	Power consumption	Temp.	Heat resistance	Voltage
All Coated	HP-ACN-410	1000mm	0.45mm	75m	47.4kg	220W/m <sup>2</sup>	60°C	100°C	AC 200V~230V
	HP-ACN-408	800mm	0.45mm	75m	40.8kg	220W/m <sup>2</sup>	60°C	100°C	AC 200V~230V
	HP-ACN-405	500mm	0.45mm	100m	33.5kg	220W/m <sup>2</sup>	60°C	100°C	AC 200V~230V
	HP-APH-410	1000mm	0.4mm	75m	43.5kg	400W/m <sup>2</sup>	80°C	100°C	AC 200V~230V
Stripe	HP-SPN-305	500mm	0.338mm	100m	25.5kg	220W/m <sup>2</sup>	60°C	70°C	AC 200V~230V
	HP-SPN-308	800mm	0.338mm	100m	39.5kg	220W/m <sup>2</sup>	60°C	70°C	AC 200V~230V
	HP-SPN-310	1000mm	0.338mm	100m	48.7kg	220W/m <sup>2</sup>	60°C	70°C	AC 200V~230V
	HP-SPN-303	300mm	0.338mm	100m	13.5kg	50W/m	60°C	70°C	DC 12V
PTC	HP-SPP-305	500mm	0.338mm	100m	25.5kg	220W/m <sup>2</sup>	60°C	70°C	AC 200V~230V
	HP-SPP-308	800mm	0.338mm	100m	39.5kg	220W/m <sup>2</sup>	60°C	70°C	AC 200V~230V
	HP-SPP-310	1000mm	0.338mm	100m	48.7kg	220W/m <sup>2</sup>	60°C	70°C	AC 200V~230V

※ OEM & Customized production is available

## Features of HEAT PLUS

### Economical heating

Heat Plus requires less power consumption to create an excellent heating effect than general convectional methods

1

4

### Simple installation

Consumer simply needs to insert it between the floor finishing material and the insulation material.

### Efficient heating

There is much less temperature difference compare to hot water pipes, hot wire method

2

5

### Safe heating

Heat Plus doesn't need a flame for ignition, therefore, there is no danger of CO2 or conduction accidents

### Healthy heating

Heat Plus generates far infrared rays which is good for human body

3

6

### Semi permanent heating system

Simple structure and high durability make possible to use semi permanently



# Shielding Heat Insulator

**Simply 2 IN 1!**

Combine shielding  
functionality to existing  
heat insulator

1

**Inductive Current  
Remove**

Mitigates discomfort  
feeling by removing  
inductive current

2

**Prevention of  
Electric Shock**

Shielding material  
prevents electric shock  
caused by leakage current

3



**Related  
Patent**

**Specification:**

Width: 100cm

Thickness: 5mm

Length: 50m(1 roll)

Packing:

60cmX60cmX100cm



# Thermostat - HP-HALF



*Do you have trouble with  
lack of Capacity?*

**HEAT PLUS** will  
solve your problem

**HP-HALF**  
**One and Only**  
**Made by HEAT PLUS**

**HEAT PLUS HP-HALF** is the revolutionary heating system which has two-circuits that operate turn by turn. So that makes possible to heat up with half the capacity.

## Specification

Maximum Capacity: 7Kw

Working Voltage: 100~250V

Temp. Range °C: -20~180

Maximum Current : 32A(16A/each channel)

Size(mm): 120X120X34

## Construction Example



Kindergarten



Student Hall



Veterans Education Center



English Village



## Construction Example



Rich Hotel



Grand Valley Pension



Sin-Ahn Beach Hotel



World Youth Hostel

## Construction Example



**Oriental Hospital**



**Women's Hospital**



**OB GYN**



**Geriatric Hospital**



## Construction Example



Vitna Church



Milal Church



Myung-hwa Temple



The Church of God

**HEAT PLUS**

# HEAT PLUS Certification





(법인사업자)

☎ : 130-86-33844

법인명(단체명) : 주식회사 세기센추리

대표자 : 박훈규

개업년월일 : 2008년 04월 17일      법인등록번호 : 121111-0171115

사업장 소재지 : 충청북도 진천군 초평면 연암길 94

본 점 소 재 지 : 충청북도 진천군 초평면 연암길 94

사 업 의 종 류 : **업태** 제조업  
도소매 **종목** 산업용 냉장 및 냉동 장비 제조업  
바닥난방제, 건축자재

교 부 사 유 :

사업자단위과세 적용사업자 여부 : 여( ) 부( ☒ )

전자세금계산서 전용메일주소 :

2014 년 08 월 25 일

청주 세무서장



국세청



## Factory Registration Certificate

[별지 제8호 서식] <개정 2009. 8. 7>

등록번호	공 장 등 록 대 장 (갑)				
일 자	2012-01-06				
회 사 명	(주)세기센주리 (전화: (011) 9756-7800)				
대표자성명	박훈규	생년월일 (법인등록번호)	121111-0171115		
대표자주소 (법인소재지)	충청북도 진천군 초평면 연암길 94				
공장소재지	충청북도 진천군 초평면 은암리 278번지		지 목	답	
설립승인번호			설립승인일자	2011-07-28	
용도지역	관리지역/계획관리지역/계획관리지 역/	배출규모별 사 업 장	대 기	해당없음	
업 종 (분류번호)	플라스틱 필름, 시트 및 판 제조업 (22212)		주 요 생 산 품	난방필름	
규 모	공 장 부 지 면 적 (㎡)	제 조 시 설 면 적 (㎡)	부 대 시 설 면 적 (㎡)		
	2,257.00	520.00	181.14		
등록조					
사 용 내 역					
회 사 명	대표자성명	사 용 면 적	업 종	가동개시일	가동상태
(주)세기센주리	박훈규	제조시설 면적(㎡)	난방시설 면적(㎡)	2012-01-09	[완료신고]
		520.00	181.14		

210mm×297mm(보존용지 1종 70g/㎡)



성민중 / 01월13일 11:01

등록번호	공 장 등 록 대 장 (을)				
일 자	2012-01-06				
회 사 명	(주)세기센주리 (전화: (011) 9756-7800)				
대표자성명	박훈규	주인등록번호 (법인등록번호)	121111-0171115		
대표자주소 (법인소재지)	충청북도 진천군 초평면 연암길 94				
공정설립등 승 인 일	2011-07-28	환 표 선 교 (등 록) 일	2012-01-06	가 동 개 시 일	2012-01-09
공 장 부 지 면 적 (㎡)	2,257.00	제 조 시 설 면 적 (㎡)	520.00	부 대 시 설 면 적 (㎡)	181.14
공 장 개 요	업 종 (분류번호)				종 업 원 수
	플라스틱 필름, 시트 및 판 제조업 (22212)				남자: 13명 여자: 2명
					보유구분 ■ 자 가 □ 임 대
주요생산품	난방필름		주요원자재	PET필름	
전력사용량 (kW/일)	용수사용량 (t/일)		인 료 사 용 량		
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
제 조 시 설 내 역					
제 조 시 설 명		수 량	배 출 여 부		
그라비아 코팅부		2			
전조기		5			
동전권출기		1			
합지부		1			
자동카팅		1			
집진기		1			
압축기		1			
권출부		2			
배기팬		1			

210mm×297mm(보존용지 1종 70g/㎡)



성민중 / 01월13일 11:01



## Prospective Small Business Designation Certificate



### 수출유망중소기업지정증

제 2015충북-03호

☐ 업체명 : (주)세기센추리 (사업자등록번호 : 130-86-33844)  
☐ 생산품목 : 건축자재  
☐ 주소 : 충북 진천군 초평면 연암길 94  
☐ 대표자 : 박 훈 규

귀사를 중소기업수출지원센터의 설치 및 운영에 관한 규정에 따라 2015년도 수출유망중소기업으로 지정함.

지정기간 : 2015. 6. 1. ~ 2017. 5. 31.



2015. 6. 8.

충북지방중소기업청장(수출지원센터장) 



### 기술혁신형 중소기업(Inno-Biz) 확인서

제 R130901 - 01356 호

업체명 : 주식회사세기센추리  
 대표자 : 박훈규  
 주소 : 충북 진천군 초평면 연암길 94 278  
 등급 : A  
 유효기간 : 2016. 10. 10 ~ 2019. 10. 9

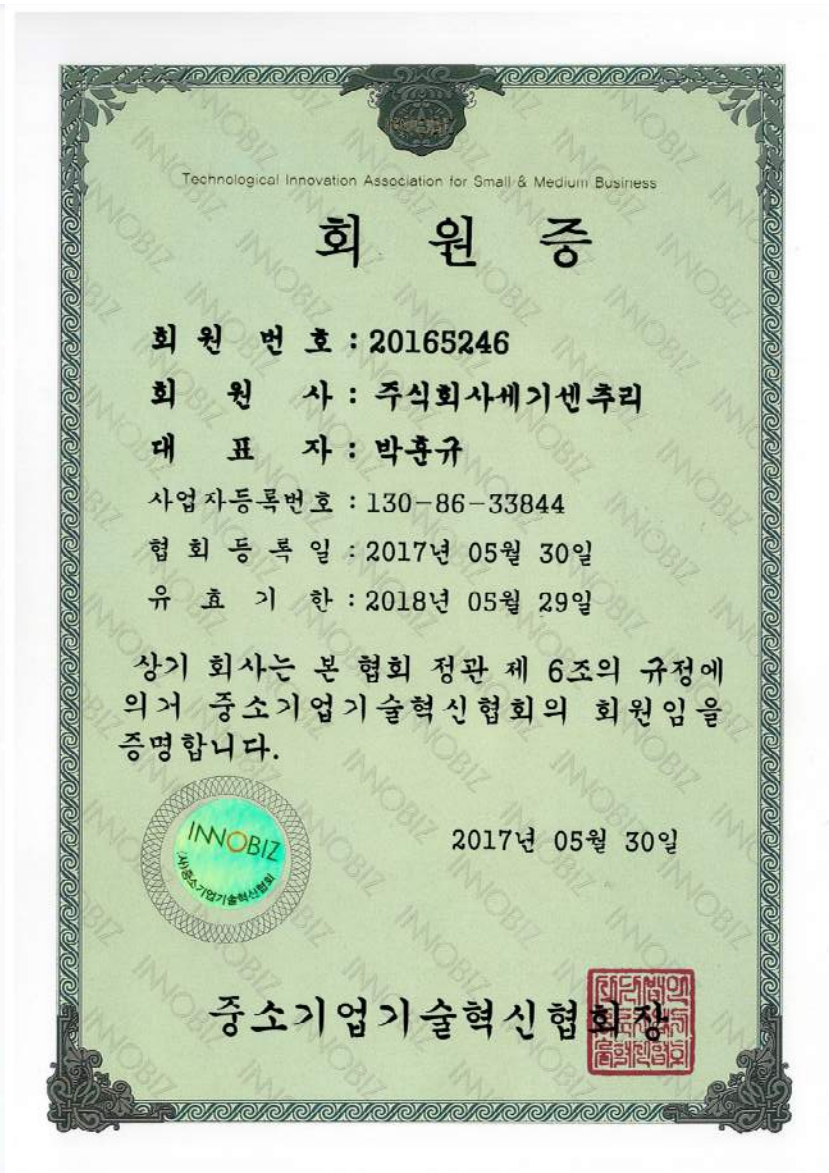
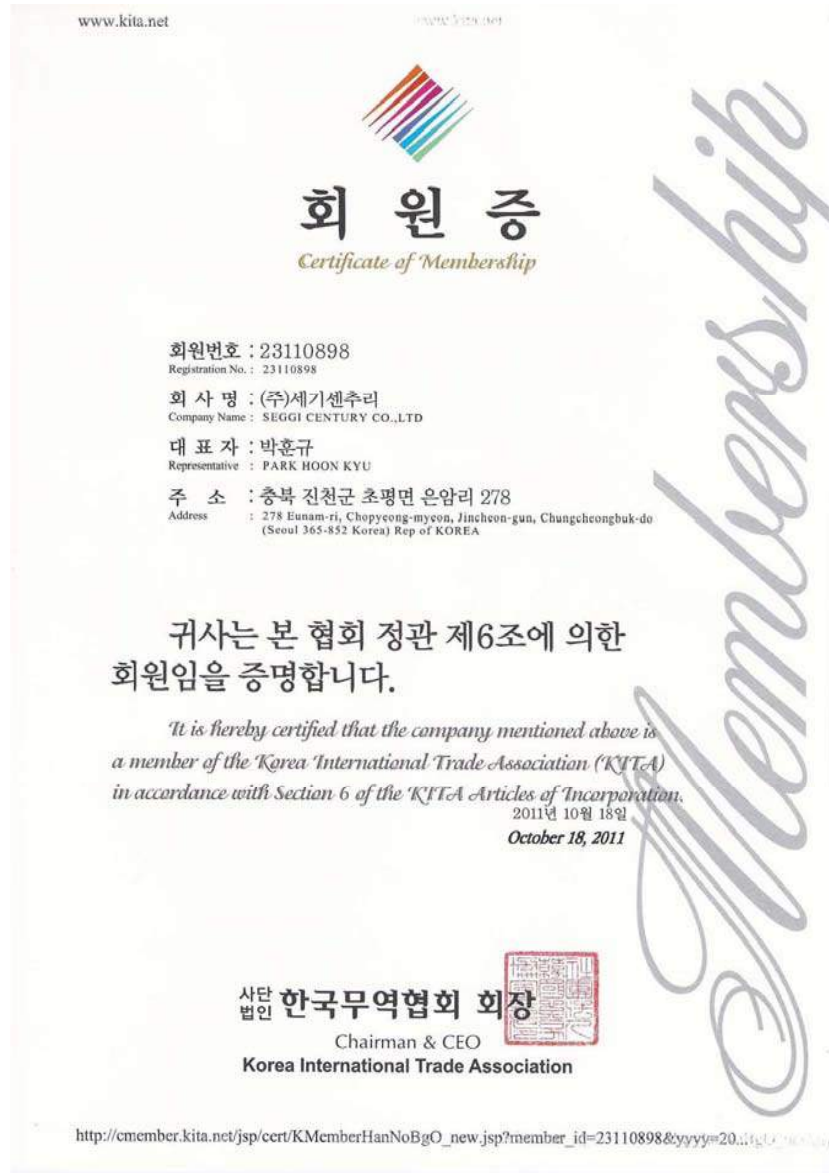
위 업체는 기술혁신형 중소기업 육성사업에 의해 선정된 기술혁신형 중소기업(Inno-Biz)임을 확인합니다.



2016년 10월 14일

중 소 기 업 청 

## Trade & Inno-Biz Association Membership



## Environmental & Quality Management Certificate





## Patents

**특허증**  
CERTIFICATE OF PATENT

**특허** 제 10-1755388 호  
Patent Number

**출원번호** 제 10-2015-0147627 호  
Application Number

**출원일** 2015년 10월 22일  
Filing Date

**등록일** 2017년 07월 03일  
Registration Date

**발명의 명칭** Title of the Invention  
전력공급장치가 구비된 면상 발열체

**특허권자** Patentee  
주식회사 세기센추리(121111-\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

**발명자** Inventor  
박훈규(590110-\*\*\*\*\*)  
충청북도 청주시 청원구 오창읍 오창중앙로 94 (한라비발디아파트) 808동 902호

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2017년 07월 03일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

  
**특허청**  
Korean Intellectual  
Property Office

**특허증**  
CERTIFICATE OF PATENT

**특허** 제 10-1002363 호  
Patent Number

**출원번호** 제 10-2010-0048967 호  
Application Number

**출원일** 2010년 05월 26일  
Filing Date

**등록일** 2010년 12월 13일  
Registration Date

**발명의 명칭** Title of the Invention  
접착시트 및 이를 포함하는 바닥 마감 시공구조

**특허권자** Patentee  
주식회사 세기센추리(121111-0\*\*\*\*\*)  
충청북도 진천군 초평면 은암리 278

**발명자** Inventor  
박훈규(590110-1\*\*\*\*\*)  
경기도 부천시 원미구 길주로 276, 무광오피스 908호 (중동)

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2016년 01월 18일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

  
**최 동 규**



## Patents

**특허증**  
CERTIFICATE OF PATENT

**특 허** 제 10-1515380 호  
Patent Number

**출원번호** 제 10-2013-0119121 호  
Application Number

**출원일** 2013년 10월 07일  
Filing Date

**등록일** 2015년 04월 21일  
Registration Date

**발명의 명칭** Title of the Invention  
길이 조절이 가능한 면상 발열체의 전극 접속용 연결단자



**특허권자** Patentee  
주식회사 세기센추리(121111-0\*\*\*\*\*)  
충북 진천군 소평면 연암길 94,

**발명자** Inventor  
등록사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2015년 04월 21일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

**특허증**  
CERTIFICATE OF PATENT

**특 허** 제 10-1540213 호  
Patent Number

**출원번호** 제 10-2014-0036905 호  
Application Number

**출원일** 2014년 03월 28일  
Filing Date

**등록일** 2015년 07월 23일  
Registration Date

**발명의 명칭** Title of the Invention  
카본 발열 직물로 이루어지는 면상 발열체

**특허권자** Patentee  
주식회사 세기센추리(121111-0\*\*\*\*\*)  
충북 진천군 소평면 연암길 94,

**발명자** Inventor  
등록사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2015년 07월 23일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

**최 동 규**



## Patents

**특허증**  
CERTIFICATE OF PATENT

**특허** 제 10-1561432 호  
Patent Number

출원번호 제 10-2014-0036915 호  
Application Number

출원일 2014년 03월 28일  
Filing Date

등록일 2015년 10월 13일  
Registration Date

발명의 명칭 Title of the Invention  
보온 쿠션부가 구비된 면상 발열체 및 그 제조방법

특허권자 Patentee  
주식회사 세기센추리(121111-0\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

발명자 Inventor  
등록사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2015년 10월 13일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규

**특허증**  
CERTIFICATE OF PATENT

**특허** 제 10-1604379 호  
Patent Number

출원번호 제 10-2014-0089214 호  
Application Number

출원일 2014년 07월 15일  
Filing Date

등록일 2016년 03월 11일  
Registration Date

발명의 명칭 Title of the Invention  
면상 발열체가 구비된 창문형 블라인드

특허권자 Patentee  
주식회사 세기센추리(121111-\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

발명자 Inventor  
등록사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2016년 03월 11일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규



## Patents

**특허증**  
CERTIFICATE OF PATENT

**특허** 제 10-1604381 호  
Patent Number

**출원번호** 제 10-2014-0121261 호  
Application Number

**출원일** 2014년 09월 12일  
Filing Date

**등록일** 2016년 03월 11일  
Registration Date

**발명의 명칭** Title of the Invention  
다채널 면상 발열체 제어 장치

**특허권자** Patentee  
주식회사 세기센주리(121111-\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

**발명자** Inventor  
박훈규(590110-\*\*\*\*\*)  
충청북도 청원군 오창읍 오창중앙로 94(한라비발디아파트) 808동 902호

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2016년 03월 11일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규

**특허증**  
CERTIFICATE OF PATENT

**특허** 제 10-1604383 호  
Patent Number

**출원번호** 제 10-2015-0009223 호  
Application Number

**출원일** 2015년 01월 20일  
Filing Date

**등록일** 2016년 03월 11일  
Registration Date

**발명의 명칭** Title of the Invention  
유해전류 제거 기능이 구비된 면상발열체용 단열부재 및 이를 이용한 면상발열체의 제조방법

**특허권자** Patentee  
주식회사 세기센주리(121111-\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

**발명자** Inventor  
동북사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2016년 03월 11일

**특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규

## Patents





## Trademark Registration

**상표등록증**  
CERTIFICATE OF TRADEMARK REGISTRATION

등록 제 40-1070693 호 (REGISTRATION NUMBER)      출원번호 (APPLICATION NUMBER) 제 2013-0068634 호  
출원일 (FILING DATE:YY/MM/DD) 2013년 10월 18일  
등록일 (REGISTRATION DATE:YY/MM/DD) 2014년 11월 19일

상표권자 (OWNER OF THE TRADEMARK RIGHT)  
주식회사 세기센추리(121111-0\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

상표를 사용할 상품 및 구분 (LIST OF GOODS)  
제 11 류  
난방용 면상발열체등 16건

**SEGGI  
HEAT PLUS**

위의 표장은 「상표법」에 따라 상표등록원부에 등록되었음을 증명합니다.  
(THIS IS TO CERTIFY THAT THE TRADEMARK IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)

2014년 11월 19일

 **특허청장 김영**  
COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE

본속기간갱신등록신청일은 2024년 11월 19일까지이며, 등록원부로 권리관계를 확인하십시오.

**상표등록증**  
CERTIFICATE OF TRADEMARK REGISTRATION

등록 제 40-1148111 호 (REGISTRATION NUMBER)  
출원번호 (APPLICATION NUMBER) 제 40-2014-0080423 호  
출원일 (FILING DATE) 2014년 11월 27일  
등록일 (REGISTRATION DATE) 2015년 12월 10일

상표권자 (Owner of the Trademark Right)  
주식회사 세기센추리(121111-0\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

상표를 사용할 상품 및 구분 (List Of Goods)  
제 11 류  
난방용 온열 필름지등 17건

**Ddata Ae**  
따뜨애 (愛)

위의 표장은 「상표법」에 따라 상표등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Trademark Act, a trademark has been registered at the Korean Intellectual Property Office.

2015년 12월 10일

 **특허청장**  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

**최동규**

## Design & Service Mark Registration

**디자인등록증**  
CERTIFICATE OF DESIGN REGISTRATION

등록  
Registration Number 제 30-0868754 호

출원번호  
Application Number 제 30-2015-0053320 호

출원일  
Filing Date 2015년 10월 22일

등록일  
Registration Date 2016년 08월 12일

등록의 구분  
Type of Registration 심 사 등록  
(EXAMINED REGISTRATION)

물품류 Class 제13류

디자인의 대상이 되는 물품 Product 디자인의 대상이 되는 물품

면상발열체용 전기접속단자

디자인권자 Owner  
주식회사 세기센추리(121111-\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

창작자 Creator  
박훈규(590110-\*\*\*\*\*)  
충청북도 청원군 오창읍 오창중앙로 94, 808동 902호(한라비발디아파트)

위의 디자인은 「디자인보호법」에 따라 디자인등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Design Protection Act, a design has been registered at the Korean Intellectual Property Office.

2016년 08월 12일

특허청장  
COMMISSIONER,  
KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규

**서비스표등록증**  
CERTIFICATE OF SERVICE MARK REGISTRATION

등록  
Registration Number 제 41-0352044 호

출원번호  
Application Number 제 41-2014-0049359 호

출원일  
Filing Date 2014년 11월 27일

등록일  
Registration Date 2016년 03월 11일

서비스표권자 Owner of the Service Mark Right  
주식회사 세기센추리(121111-\*\*\*\*\*)  
충북 진천군 초평면 연암길 94,

서비스표를 사용할 서비스업명 및 구분  
List of Services 제 35 류  
난방용 운영 필름지 도매업등 20건

주식회사 따프에

위의 표장은 「상표법」에 따라 서비스표등록원부에 등록되었음을 증명합니다.  
This is to certify that, in accordance with the Trademark Act, a service mark has been registered at the Korean Intellectual Property Office.

2016년 03월 11일

특허청장  
COMMISSIONER,  
THE KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규



## International Certification: CE

**CE**

**EC Declaration of Conformity**  
according to EC Low Voltage Directive 2006/95/EC  
and EMC Directive 2004/108/EC

**Manufacturer's Name:** Seggi Century Co., Ltd.  
**Manufacturer's Address:** #278, Eunam-ri, Chopyeong-Myeon, Jincheon-Gun, Chungbuk, Korea

**Declares that the product:**  
**Product Name:** Heating film  
**Model Number:** APN-410  
**Variant Model:** -

To which this declaration relates is in conformity with the following standard(s) or other normative document(s);

EN 55014-1:2006/A2:2011	Electromagnetic compatibility Requirements for household appliances, electric tools and similar apparatus Part 1: Emission
EN 55014-2:1997/A2:2008	Electromagnetic compatibility Requirements for household appliances, electric tools and similar apparatus Part 2: Immunity
EN61000-3-2:2006 + A2:2009	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
EN61000-3-3:2008	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
EN 60335-1:2012	Household and similar electrical appliances - Safety Part 1: General requirements
EN 62233:2008	Household and similar electrical appliances - Electromagnetic fields - Methods for evaluation and measurement

following the provisions of Directive(s);

2004/108/EC	Council Directive on the approximation of laws of the Member States relating to electromagnetic compatibility (OJ L31/2004 12.5.92) amended by Directives, 92/31/EEC (OJ L126 12.5.92) and 93/68/EEC(OJ L220 30.8.93)
2006/95/EC	Directive on the laws of Member States relating to electrical equipment designed for use with certain voltage limits (OJ L374 27.12.2006)

Korea / July 26, 2013  
(Place and date of issue) (name and signature or equivalent making of authorized person)

European Contact (for regulatory topics only):

**CE**

**EC Declaration of Conformity**  
according to EC Low Voltage Directive 2006/95/EC  
and EMC Directive 2004/108/EC

**Manufacturer's Name:** Seggi Century Co., Ltd.  
**Manufacturer's Address:** #278, Eunam-ri, Chopyeong-Myeon, Jincheon-gun, Chungbuk, Korea

**Declares that the product:**  
**Product Name:** Heating film  
**Model Number:** HP-SPN305  
**Variant Model:** -

To which this declaration relates is in conformity with the following standard(s) or other normative document(s);

EN 55014-1:2006+A1:2009	Electromagnetic compatibility - Requirements for household appliances, electric tool and similar apparatus- Part1: Emission
EN 55014-2:1997 +A2:2008	Electromagnetic compatibility - Requirements for household appliances, electric tool and similar apparatus- Part2: Immunity - Product family standard
EN 61000-3-2:2006 +A2:2009	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
EN 61000-3-3:2008	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
EN 60335-1:2002 /A13:2008	Household and similar electrical appliances - Safety Part 1: General requirements
EN 50366:2003 /A1:2006	Household and similar electrical appliances - Electromagnetic fields - Methods for evaluation and measurement

following the provisions of Directive(s);

2004/108/EC	Council Directive on the approximation of laws of the Member States relating to electromagnetic compatibility (OJ L31/2004 12.5.92) amended by Directives, 92/31/EEC (OJ L126 12.5.92) and 93/68/EEC(OJ L220 30.8.93)
2006/95/EC	Directive on the laws of Member States relating to electrical equipment designed for use with certain voltage limits (OJ L374 27.12.2006)

Korea / February 21, 2012  
(Place and date of issue) (name and signature or equivalent making of authorized person)

European Contact (for regulatory topics only):



## International Certification: CE

CE CONFORMANCE VERIFICATION	
<b>NOT TRANSFERABLE</b>	
CE CONFORMANCE VERIFICATION hereby issued to the named Applicant and is VALID ONLY for the equipment identified hereon for use under the rules and regulations listed below:	
<b>Applicant's Name:</b>	Seggi Century Co., Ltd.
<b>Applicant's Address:</b>	#278, Eunam-Ri, Chopyeong-Myeon, Jincheon-Gun, Chungbuk, Korea
<b>Manufacturer's Name:</b>	Same as above
<b>Manufacturer's Address:</b>	Same as above
<b>Product Description:</b>	Heating Film
<b>Model Number:</b>	GC-100
<b>Serial Number:</b>	Prototype
<b>Applicable Regulation:</b>	EC Council Directive 2004/108/EC EN55014-1:2000, +A1:2001, +A2:2002 EN55014-2:1997, +A1:2001
I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s) as described in the attached test report.	
TESTED and CERTIFIED by: <b>Korea Standard Quality Laboratories</b> KSQ Bldg., #23-123, Daebang-Dong, Dongjak-Gu, Seoul 156-807, KOREA Tel: +822-827-0005 Fax: +822-824-5642	
Date: July 20, 2008 Report Number KSQ-CE080713 Authorized Signature:  Sung Goo Kim / President	

CE CONFORMANCE VERIFICATION	
<b>NOT TRANSFERABLE</b>	
CE CONFORMANCE VERIFICATION is hereby issued to the named Applicant, and is VALID ONLY for the equipment identified hereon for use under the rules and regulations listed below:	
<b>Applicant's Name:</b>	Seggi Century Co., Ltd.
<b>Applicant's Address:</b>	#278, Eunam-Ri, Chopyeong-Myeon, Jincheon-Gun, Chungbuk, Korea
<b>Manufacturer's Name:</b>	Same as above
<b>Manufacturer's Address:</b>	Same as above
<b>Type of Equipment:</b>	Heating Film
<b>Model Number:</b>	GC-100
<b>Serial Number:</b>	Prototype
<b>Applicable Regulation:</b>	Low Voltage Directive 2006/95/EC EN60335-1:1994+A1/+A2/+A11/+A12/+A13/ +A14/+A15/+A16 EN60335-2-45:2002 Safety of household and similar electrical appliances - Part 2: Particular requirements for portable heating tools and similar appliances
I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s) as described in the attached test report.	
TESTED and CERTIFIED by: <b>Korea Standard Quality Laboratories</b> KSQ Bldg., #23-123, Daebang-Dong, Dongjak-Gu, Seoul 156-807, KOREA Tel: +822-827-0005 Fax: +822-824-5642	
Date: July 20, 2008 Report Number KSQ-LVD0714 Authorized Signature:  S. G. Kim / President	

## International Certification: S-JET / RoHS



### 認 証 書

JET認証業務規程に基づく検査の結果、認証の要件に適合しているものと認められますので認証します

認証の種類 : S-JET 認証

認証書番号 : 1453-81084-001

認証年月日 : 2010-11-25

認証取得者 (名称及び住所) :

株式会社 GROOVE  
神奈川県横浜市西区楠町1番地2

製品名 : 電熱シート

製品の型番及び定格 : 付属書の通り

製造工場 (名称及び住所) : 付属書の通り

試験基準 : 電気用品の技術上の基準を定める省令第1項  
別表第八 1及び2(33)

認証書番号 : 1453-81084-001

付属書番号 : S09Y0788- 2 / 2

付属書発行日 : 2010-11-25

製造工場 (名称及び住所) :

1453-81a  
SEGGI CENTURY CO., LTD.  
#68 SINYANG-RI, SAENGGEUK-MYUN, EUMSEONG-GUN,  
CHUNGCHONGBUK-DO, KOREA

理事長 末廣 恵雄



### DECLARATION OF CONFORMITY

European Union Directive 2002/95/EC  
(RoHS)

Supplier Name : SEGGI CENTURY CO., LTD.

Product Marketing Model Name : Heat-Plus Heating film

We declare that the product specified above has been designed in compliance with the essential requirements and other relevant provisions of European Union Directive 2002/95/EC (RoHS).

We declare that the above product manufacturing process is in compliance with the essential requirements and other relevant provisions of European Union Directive 2002/95/EC (RoHS).

Conforms to the EU Directive 2002/95/EC (RoHS) and to the generally accepted maximum concentration values (MCVs) of 0.1% for hexavalent chromium (Cr VI), mercury (Hg), lead (Pb), polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs), and 0.01% for cadmium (Cd) at the homogeneous level.

Signature : *H. H. Park*

Printed Name : Hoon Kyu, Park

Title : President

Date : May 14, 2009

Contact Phone Number and Email : + 82-32-328-6699  
(FAX) + 82-32-328-6464



## International Certification: GOST / UL

**СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р**  
**ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ**

**СЕРТИФИКАТ СООТВЕТСТВИЯ**

№ РОСС KR.XP28.B10023

Срок действия с 20.01.2012 по 19.01.2015  
№ 0636200

ОРГАН ПО СЕРТИФИКАЦИИ, рег. № РОСС RU.0001.11XP28.ОРГАН ПО СЕРТИФИКАЦИИ ПРОДУКЦИИ "ПРОМСЕРТ". 119421, г. Москва, ул. Новаторов, д. 36/3, оф.42, тел. 8(495)721-38-31, info@org-promsert.ru.

ПРОДУКЦИЯ Обогреватели электрические бытовые листовые гибкие т.м. "HEATPLUS".  
Серийный выпуск.

КОД ОК 005 (ОКП): 34 6859

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ  
ГОСТ Р 52161.1-2004; ГОСТ Р 52161.2-2006; ГОСТ Р 51318.14.1-2006 (Разд. 4); ГОСТ Р 51318.14.2-2006 (Разд. 5, 7); ГОСТ Р 51317.3.2-2006 (Разд. 6, 7); ГОСТ Р 51317.3.3-2008

КОД ТН ВЭД России: 8516 29 990 0

ИЗГОТОВИТЕЛЬ SEGGI CENTURY CO.,LTD.  
Адрес: #68,Sinyang-ri, Saenggeuk-myeon, Eumseong-gun, Chungbuk, Республика Корея.

СЕРТИФИКАТ ВЫДАН SEGGI CENTURY CO.,LTD.  
Адрес: #68,Sinyang-ri, Saenggeuk-myeon, Eumseong-gun, Chungbuk, Республика Корея.

НА ОСНОВании протокола сертификационных испытаний № 194.2012-1 от 19.01.2012 г.  
Испытательная лаборатория ООО "АС Ресурс", рег. № РОСС RU.0001.21AB63 от 07.07.2011, адрес: 105318, Москва, ул. Ибрагимова, д. 35, стр. 2, эт. 1, пом. 1, ком. 1а

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Место нанесения знака соответствия: знак соответствия по ГОСТ Р 52161.1-2004 наносится на корпус изделия и (или) в эксплуатационную документацию.  
Количество сертификатов: 3.

Руководитель органа Е.А. Дмитриева  
Эксперт М.И. Чуряев

Сертификат имеет юридическую силу на всей территории Российской Федерации

**Certificate of Compliance**

Certificate Number 20110114-E341497  
Report Reference E341497, 2010 November 09  
Issue Date 2011 January 14

Page 1 of 1

 **Underwriters Laboratories**

Issued to: SEGGI CENTURY CO LTD  
68, SINYANG-RI, SAENGEUK-MYEON, EUMSEONG-GUN, CHUNGBUK  
369-841 KOREA

This is to certify that representative samples of HEATERS, SPECIALTY  
Model HP-SPN-305

Have been investigated by Underwriters Laboratories in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 499 - STANDARD FOR ELECTRIC HEATING APPLIANCES - Edition 13  
CSA C22.2 NO. 72 - HEATER ELEMENTS - Edition 3

Additional Information: See UL On-line Certification Directory at [www.ul.com](http://www.ul.com) for additional information.

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

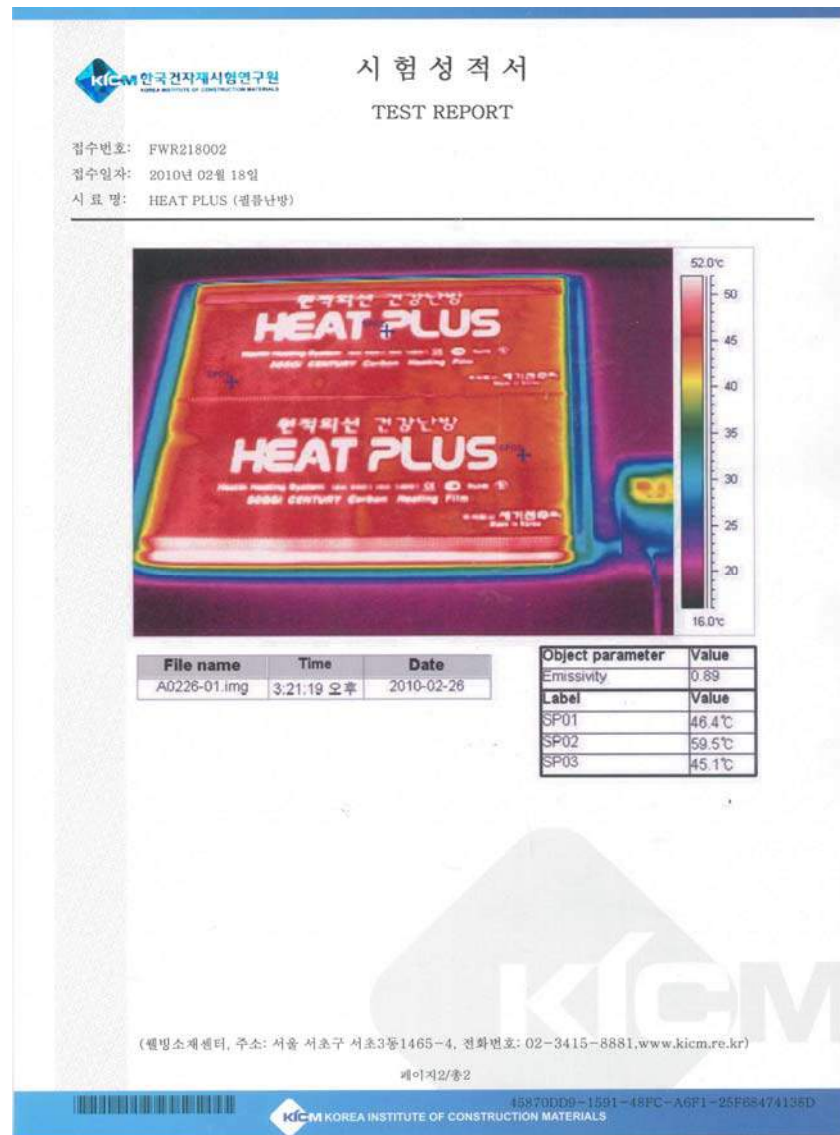
The UL Recognized Component Mark for the U.S. generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark  may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognition or under "Markings" for the individual recognitions. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada  and the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.

Look for the UL Recognized Component Mark on the product

**William R. Carney**  
Director, North American Certification Programs  
Underwriters Laboratories Inc.  
Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.  
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## Far Infrared Test Report



# Far Infrared Test Report

**KICM 한국건전재시험연구원**  
KOREA INSTITUTE OF CONSTRUCTION MATERIALS

## 시험 성적서

### TEST REPORT

접수번호: FWR218001      접수일자: 2010년 02월 18일

신청인: 주식회사 세기엔지니어링 박준규  
주소: 충북 음성군 생극면 신양리 68  
자료명: HEAT PLUS (필름난방)

시험결과				
시험항목	단위	구분	결과	시험방법
방사율 (측정온도: 40℃, 측정파장: 5 ~ 20μm)	—	1	0.901	KICM-FIR-1005:2006
방사에너지 (측정온도: 40℃, 측정파장: 5 ~ 20μm)	W/m <sup>2</sup>	1	3.63 × 10 <sup>2</sup>	KICM-FIR-1005:2006

※ 시험성적서 이용목적: 품질관리  
※ 본 시험결과는 FT-IR Spectrometer를 이용한 Black Body대비 측정 결과임. 끝.

비고: 1. 이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로서, 전체 제품에 대한 품질을 보증하지는 않습니다.  
2. 이 성적서는 한국건전재시험연구원의 사전 서면동의없이 홍보, 선전, 광고 및 소송용으로 사용될 수 없으며 용도 이외의 사용을 금합니다.  
3. 이 성적서의 부분 발급 기한은 원본 발급일로부터 6개월 이내이며, 사본은 무효입니다.

담당자: 이형욱 (02-3415-8878)

2010년 03월 04일

**한국건전재시험연구원**  
(필름소재센터, 주소: 서울 서초구 서초3동1465-4, 전화번호: 02-3415-8881, www.kicm.re.kr)

페이지 1/총 3

1082EC80-C1A8-4C35-AF43-7FA8E44E1336  
KICM KOREA INSTITUTE OF CONSTRUCTION MATERIALS

**KICM 한국건전재시험연구원**  
KOREA INSTITUTE OF CONSTRUCTION MATERIALS

## 시험 성적서

### TEST REPORT

접수번호: FWR218001  
접수일자: 2010년 02월 18일  
자료명: HEAT PLUS (필름난방)

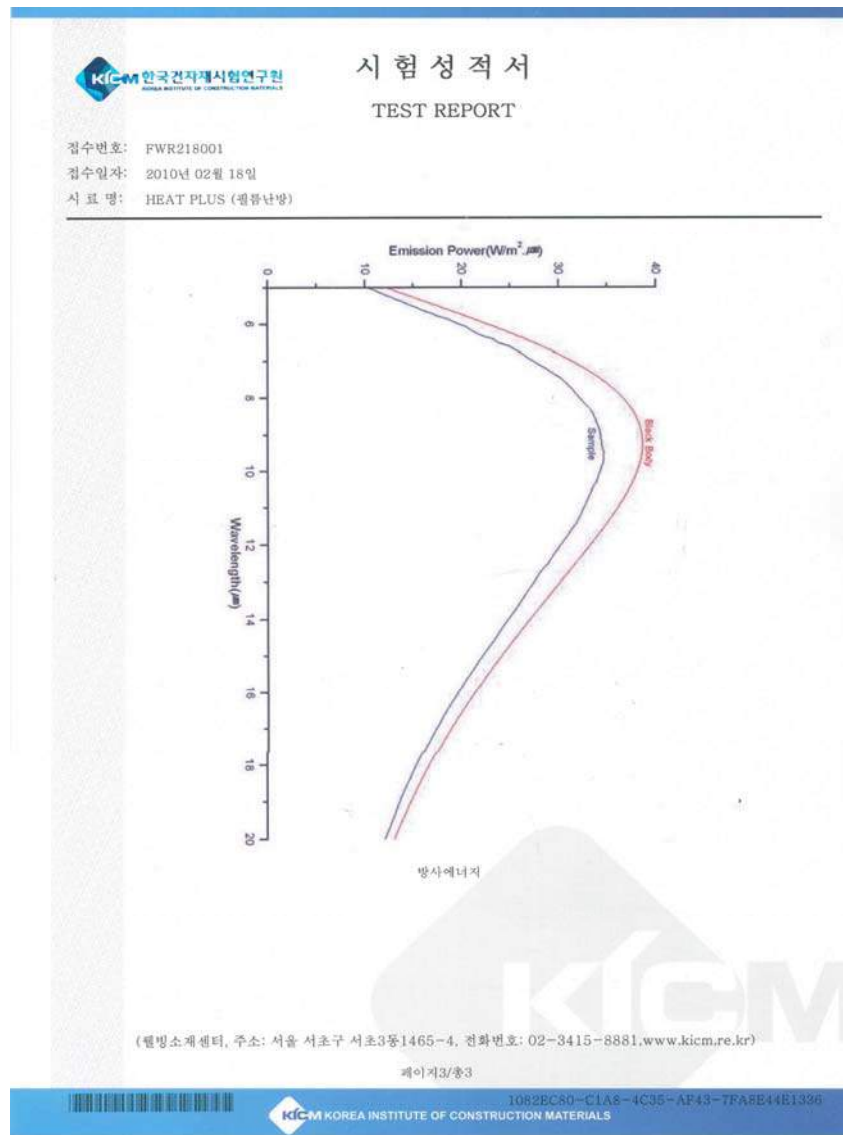
방사율

(필름소재센터, 주소: 서울 서초구 서초3동1465-4, 전화번호: 02-3415-8881, www.kicm.re.kr)

페이지 2/총 3

1082EC80-C1A8-4C35-AF43-7FA8E44E1336  
KICM KOREA INSTITUTE OF CONSTRUCTION MATERIALS

## Far Infrared Test Report



**KICM 한국건자재시험연구원**  
KOREA INSTITUTE OF CONSTRUCTION MATERIALS

**시험 성적서**  
TEST REPORT

접수번호: FWR218002  
접수일자: 2010년 02월 18일  
신청인: 주식회사 세기엔지니어 박준규  
주소: 충북 음성군 생극면 신암리 68  
시료명: HEAT PLUS (필름난방)

시험 결과			
시험항목	단위	구분	결과
적외선 열화상 측정시험	℃	1	사전참조

※ 시험성적서 이용목적: 품질관리

시험방법: KICM-FIR-1006

비고: 1. 이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로서, 전체 제품에 대한 품질을 보증하지는 않습니다.  
2. 이 성적서는 한국건자재시험연구원의 사전 서면동의없이 홍보, 선전, 광고 및 소송용으로 사용될 수 없으며 용도 이외의 사용을 금합니다.  
3. 이 성적서의 부분 발급 기한은 원본 발급일로부터 6개월 이내이며, 사본은 무효입니다.

담당자: 이형숙 (02-3415-8878)  
2010년 03월 02일

**한국건자재시험연구원**  
(텔빙소재센터, 주소: 서울 서초구 서초3동1465-4, 전화번호: 02-3415-8881, www.kicm.re.kr)

페이지 1 / 총 2

KICM KOREA INSTITUTE OF CONSTRUCTION MATERIALS 45670DD9-1591-48FC-A8F1-20F08474138D



## Insurance



### Insurance Policy

#### Products Completed Operations Liability(II)

Policy No : 31732842500000

##### ○ Policy Detail

<b>Policyholder</b>	(주)세기센주리 (365852) 278, Eunam-ri, Chopyeong-myeon, Jincheon-gun, Chungcheongbuk-do, Korea	<b>SSB/Corporate Registration Number</b>	130-86-33844
<b>The Insured</b>	(주)세기센주리 (365852) 278, Eunam-ri, Chopyeong-myeon, Jincheon-gun, Chungcheongbuk-do, Korea	<b>SSB/Corporate Registration Number</b>	130-86-33844
<b>Policy Period</b>	2017-05-16 00:00 ~ 2018-05-16 00:00	<b>Application Date</b>	2017년 05월 11일
<b>Initial Premium</b>	KRW 4,000,000	<b>Total Premium</b>	KRW 4,000,000

<b>갱신계약여부</b>	갱신	<b>전계약번호</b>	31630437500000
<b>통화종류</b>	KRW	<b>공동인수구분</b>	단독
<b>납입방법</b>	일시납	<b>금종구분</b>	현금
<b>연간/구간 구분</b>	연간계약	<b>담보지역</b>	전세계(북미지역제외)
<b>통신수단 이용 해지 동의여부</b>	예	<b>최근5년간사고여부</b>	아니오
<b>동일위험중복가입여부</b>	무		

##### ○ Location

(27860) 충청북도 진천군 초평면 연암길 94 (은암리)

##### ○ Indemnity

Insured Objective	Coverage	Currency	Limit of Liability	Premium
Product Liability	Products/Completed Operations Liability(II) CSL a.o.c.	KRW	300,000,000	
	Products/Completed Operations Liability(II) CSL agg.	KRW	300,000,000	
	Products/Completed Operations Liability(II) CSL Ded a.o.c.	KRW	1,000,000	

##### ○ Insured Detail

Insured Objective	Product liability		
생산되는제품	기타	담보제품명	HEAT PLUS(FILM HEATER, THERMOSTAT)
산출기초수	1000000000	보험료기초종류	매출액
소급담보일자	20150415		

##### ○ Terms and Conditions

Products/Completed Operations Liability Policy(II) (Claims-Made Basis)

Additional Insured (Vendors) Clause

Nuclear Energy Liability Exclusion Clause

- 취급부서 : AA 영업(부산)
- 취급자 : AIG Advisors 부산(부행 대리점)
- 연락처 : 박기원(051-604-0200)
- 발행일자 : 2017년 05월 17일 09시 30분
- 고객센터 : 1644-9002

27Floor, Two IFC, 10 Gukjegeumyung-ro,  
Yongdeungpo-gu, Seoul 07326 Korea  
Tel. (02)2260-6800 / Fax. (02)2260-6702

AIG Korea Inc.

[ 1 / 2 ]



### Insurance Policy

#### Products Completed Operations Liability(II)

Policy No : 31732842500000

Premium/Claim Payment Clause
Punitive Damages Exclusion Clause
Deductible Liability Insurance Clause
Total Pollution Liability Exclusion
Absolute Lead Exclusion
EMF Exclusion Clause
Inefficiency Clause
Product Recall/Guarantee Exclusion
Sanction Limitation and Exclusion Clause (II)
Terrorism Exclusion Clause
Asbestos Exclusion Clause
Silica Exclusion Clause
Professional Liability Exclusion
All cost & expenses are included within the limit of liability
Confirmation of no known loss(es), claim(s) or any circumstance(s) possibly leading to a claim as of policy inception

##### ○ Additional Item

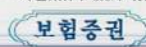
\* TERRITORY/JURISDICTION : WORLDWIDE EXCLUDING USA/CANADA/AUSTRALIA

\* ESTIMATED ANNUAL TURNOVER :

KOREA - KRW500,000,000.-  
EUROPE - KRW200,000,000.-  
OTHERS - KRW200,000,000.-

우리회사는 보험계약자와 해당 보험약관에 의하여 보험계약을 체결하고 그 증거로서 이 보험증권을 드립니다.

\* 이 보험증서는 2017년 05월 17일 AIG AA 영업(부산)에서 작성되었습니다.



AIG Korea Inc.  
President & CEO Steven Borrett



대한민국정부  
인-인-인  
영도부세무서장  
인인인인인인인인인

- 취급부서 : AA 영업(부산)
- 취급자 : AIG Advisors 부산(부행 대리점)
- 연락처 : 박기원(051-604-0200)
- 발행일자 : 2017년 05월 17일 09시 30분
- 고객센터 : 1644-9002

27Floor, Two IFC, 10 Gukjegeumyung-ro,  
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Tel. (02)2260-6800 / Fax. (02)2260-6702

AIG Korea Inc.

[ 2 / 2 ]

**HEAT PLUS**

# HEAT PLUS Installation Manual



## How to Install: Preparations



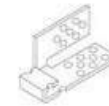
01 HEAT PLUS Heating Film



02 Butyl Tape



03 Insulator



04 Connector



05 Insulative Tape



06 OPP Tape



07 Cable



08 Presser



09 Sensor



10 Stripper



11 Thermostat



## How to Install



### 1. Site management before construction

Clean the floor. Be careful that there are no screws or bolts on the floor, and remove moisture.



### 2. Insulator laying

Place the insulator on the floor and fix it with a regular OPP tape. (※ Make sure that the slippery plastic side of the insulator is on top.)

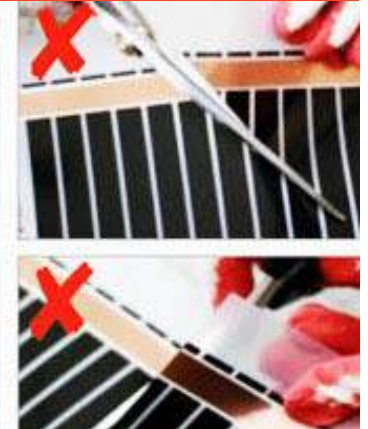


## How to Install



### 3. Film (HEAT PLUS) laying

Place the insulator on the floor and fix it with a regular OPP tape.  
(※ Make sure that the slippery plastic side of the insulator is on top.)



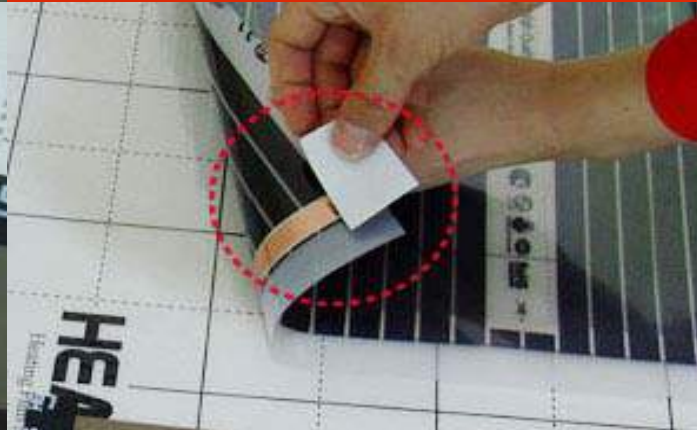
## How to Install



### 4. Insulating the film

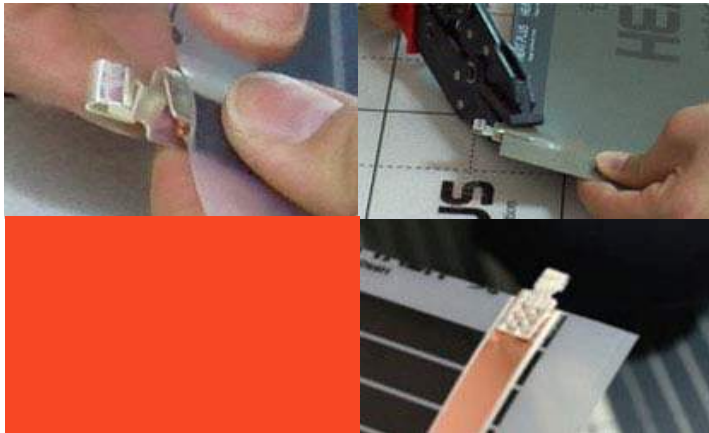
Insulate the cut surface of the film (HEAT PLUS) with insulative tape or butyl tape.

(※ Butyl tape is also a kind of insulative tape.)





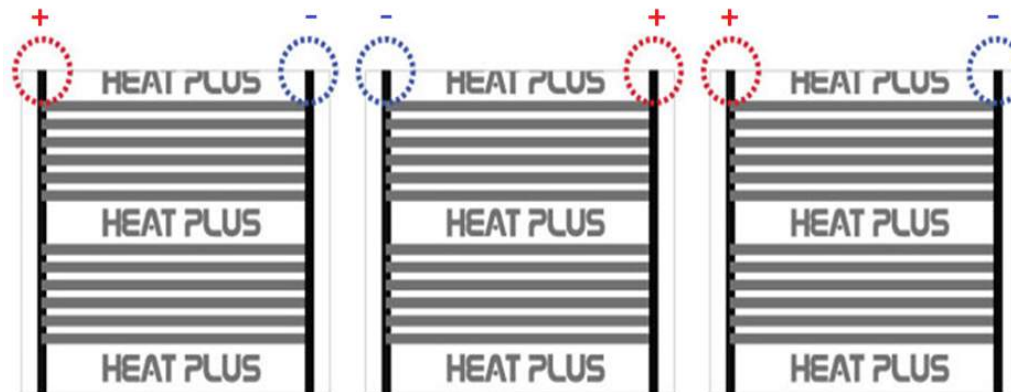
## How to Install



### 5. Connecting Terminals

After inserting the terminal into the space of the copper foil, press it with a presser (pliers).

(※ When inserting, be sure to pass it to the copper area, not the silver area.)

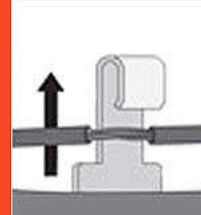
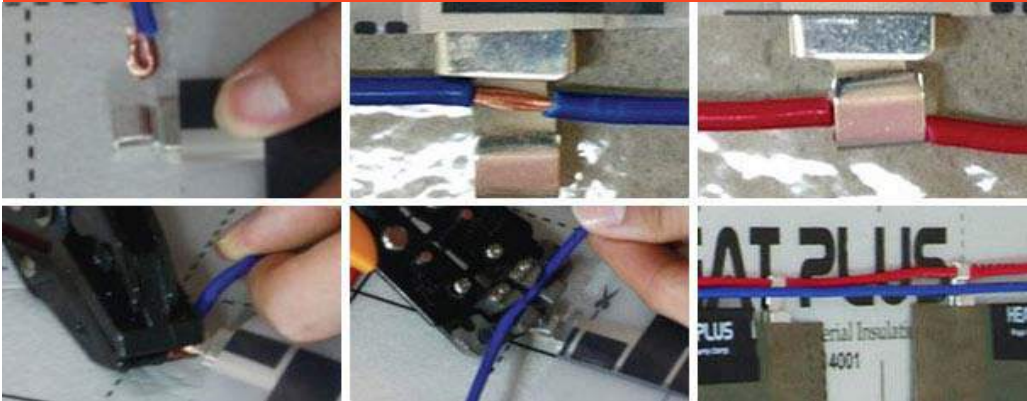


## How to Install



### 6-1. Connecting wires (cables)

Double the first (starting) terminal of each wire. (\* Be careful not to twist the two wires when connecting.)



### 6-2. Connecting wires (cables)

Connect all the + terminal wires first, then the - terminal side wires. (\* When removing the surface of wire, use stripper.)



## How to Install



### 7. Insulating wires

Insulate the area where the wires, terminals, and film are connected with butyl tape. During insulation, press the tape firmly to prevent moisture. After insulation, clean up the wires using regular tape.

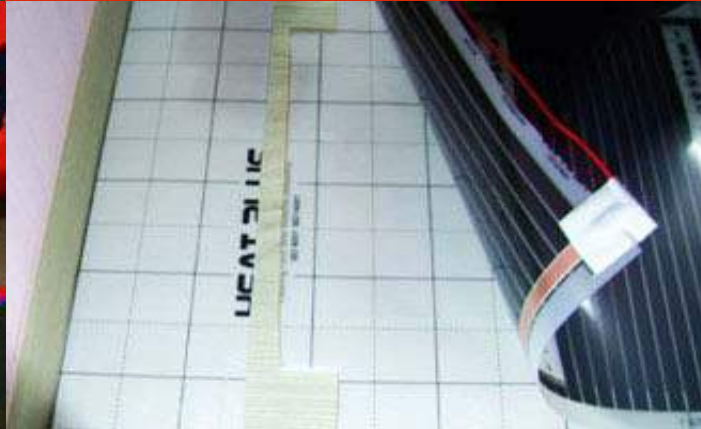
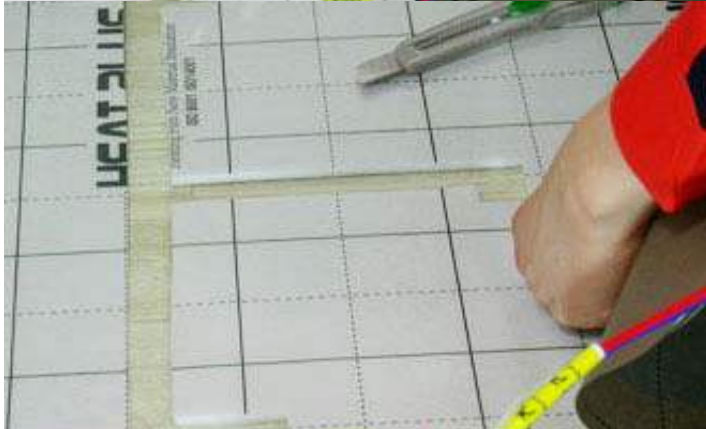




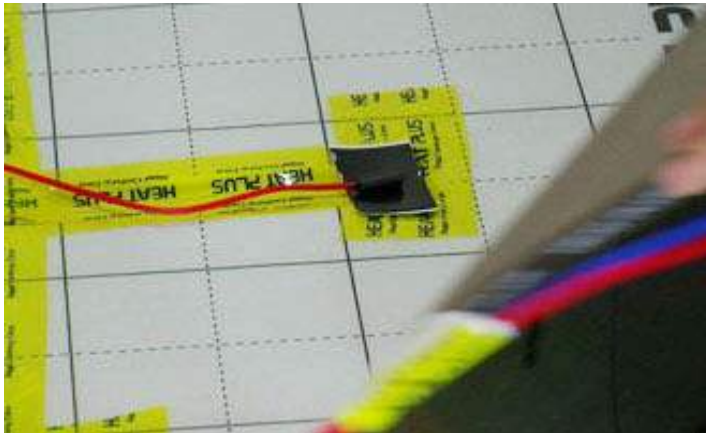
## How to Install

### 8. Destroying the insulator (clipping the insulator)

Areas with wires and butyl tape are different in thickness, making it difficult to finish. Therefore, cut the insulator of the corresponding part and attach the tape to prevent the moisture from rising upward.



## How to Install



### 9. Installation of regulator

Refer to “How to connect the regulator” to connect the regulator to the film. ※ It is safe to use separate circuit breaker for each controller.



### 10. Checking and construction completion

Make sure the capacity of the connected film and the actual power usage is correct. Construction is completed.

**HEAT PLUS**

**HEAT PLUS**

**In the World**

