

Thermo-

Plane Film Heater Exothermic Vest Picture Frame Heater Desk Stove Sauna Heating Panel



Plane Film Heater

AT THE LOW TEMPERATURE

Thermo - Q under-floor side wall

Plane Film Heater

Innovative film heater for underfloor heating without installation of a water boiler.

I.I Healthy

- Far infrared ray radiation 3.49×10²watt/m²
- Anion radiation more than 500(ions/cc)
- The control of electromagnetic wave generation

1.2 Environment Friendly

Since it is operated without the process of combustion, there is not much need for ventilation even in the winter. It is a silent and clean heating system without ordor. In the case of under-floor heating, you're safe from cement virulence because there is no curing work.

1.3 Convenient

- Easy installation
- light-weighted and convenient to handle.
- doesn't need water boiler piping construction.
- good for partial heating or remodeling.
- installation is very simple with a 0.2mm thin film.
- increases customer's satisfaction through emission of far infrared rays and anions.
- water-proof coating for safer use.
- construction time can be significantly decreased.
- composed of ligh-weighted material.

Description Item	weight per m² (kg /m²)	thickness (mm)	construction time (day)	
Hot water piping system	about 12	110~120	10(curing)	
Electrical floor heating system	about 1.5~3	150	I~3 day	
Thermo-Q	about 0.3~0.9	5~15	within I day	



wooden tiles or hard laminates thermal storage thermal

building base

insulatio

The plane heater from.

Existing Ni/Cr wire heaters have big temperature variations. Thermo-Q generates heat evenly on every exothermic part and excellently in efficiency.

The heat radiation.

Unlike air-heating convection, radiation warms up object. and people in the room as sunlight does.

• The power saving effect.

Installation Type	Discription	Surface temperature	Power consumption (Per/m²)
for wooden floor	AC220V/22W,50cm X 50M(20M)	45°C(113°F)	160w
	AC220V/30W,50cm X 50M(20M)	55°C(131°F)	220w
for marble floor	AC220V/80W,50cm X 50M(20M)	65°C(149°F)	590w
for marble wall	AC220V/30W,50cm X 50M(20M)	55°C(131°F)	220w
	AC220V/40W,50cm X 50M(20M)	60°C(140°F)	290w
	AC220V/60W,65cm X 50M(20M)	60°C(140°F)	340w
	AC220V/80W,65cm X 50M(20M)	65°C(149°F)	450w

In case of 100% installation rate

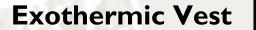
Temp. measured between the film and insulation

1.5 Safety

- Face exothermic materials.
 - It doesn't exceed the default highest temperature.
 - The distribution of temperature is even, therefore, no partial overheating.
 - Though heated area may be partially damaged, it doesn't affect the whole heating system.
 - Repeated bending or crumpling doed not cause arching, so long life-span is ensured. Safety devices for Thermo-Q
- There are two sensors in the temperature controller
- One is for temp. adjusting and the other is for preventing over heating.
 - In the case of electricity leakage and an excess current, a breaker will cut the circuit.

Under - Floor heating film

- Ultra slim film heater with thickness of 0.3mm.
- Healthful heating system radiating far infrared rays, anions.
- Innovative power saving design, simple installation, instant use after installation.



HEAT RADIANT CLOTHES

Nickelory

far infrared rays

Exothermic Vest

Enjoy warm winters with a vest that heats up like a sauna.

2.1 Astounding MATERIAL

The most essential aspect of the exothermic vest is the face exothermic material. The exothermic material created by Uniplatek Co.,ltd. is a crystallized result of many years of research and development.

2.2 95% Exothermic Material

Percent composition of exothermic material: 95%

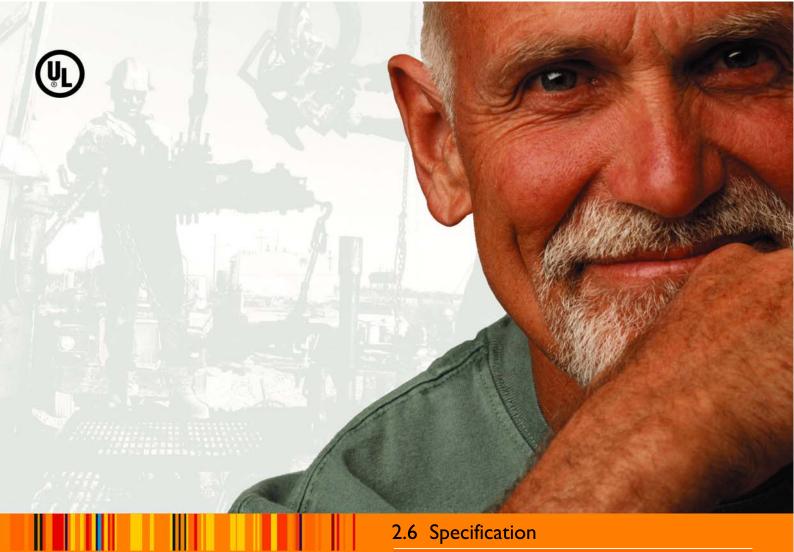
2.3 Lithium Polymer Batteries

Uniplatek Co.,ltd. provides its product to be much safer and environmentally friendlier than other existing products, with its use of lithium polymer batteries.

2.4 Healthy

Far infrared ray radiation - 3.49×10²watt/m² The control of electromagnetic wave generation - 0.4mG





Specifications			
Heating Material	Carbon exothermic material		
Color	Various		
Size	S/M/L/XL/XXL		
Radiant part	back and front of body		
Recharger	AC 100-240V		
Battery	7.4V/4,100mAh, 3.7V/4100mAh		
Made in	Korea		





vehicles





exothermic unit

recharger for home use

2.7 Feature

Safe & powerful lithium polymer battery applied.

Rechargeable approx. 500times.

High-tech heating units generate far infrared rays.

Comfortable suits as heating units are flexible.

Heating range 104~158°F(40~70°C)

Temperature is controllable and maintained approx. 6~10hours.

2.8 How film heaters are made?

Special exothermic materials are put on films, and electrodes are installed at each end. The heat resistant polymer film is coated to complete the heaters.

As heat is generated from exothermic materials, electromagnetic wave are not emitted.

These heaters are applicable for various functional clothes as shapes can be adjusted.







Thermo-Q Desk Heater

compact and clean portable heater. heating panel from high temperature.







3.4 Specification

Product	Frame demension	Heating temperature	Power consumption per I ea
ThermoQ-SAUNA	450 x 450 mm	176°F(80°C)	200W
ThermoQ-DESK	300 x 400 mm	176°F(80°C)	100W
ThermoQ-PICTURE	550 x 700 mm	212°F(100°C)	400VV
	600 x 1,000 mm	212°F(100°C)	600W

3.5 Feature

It radiates far infrared rays and anions as well as heat energy. It radiates high heat of $140\sim194^{\circ}F$ immediately after turning on. It is safe from fire, because the temperature does not exceed the default temperature setting.

Radiation heating system generates no noise or ashes which are generated from kerosene stoves.

It does not consume oxyzen to heat space. Hot air circulation which produces dust is prevented. It is the best heating apparatus for a healthy life.

It is completely coated for water-proof, so electric leakage that into water and moisture is not dangerous at all.

Priority to human resources, mutual benefit, and creative thinking.

UNIPLATEK

- Jul. 2000: Appointed as a 'Promising small and medium company' by Daejeon Metro City
- May. 2001: Certified ISO9001(3549) by United Registrar of Systems Ltd.
- Aug. 2001: Performed policy research task of Ministry of Science & Technology-Research Management Company
- Jan. 2003: Performed Korea-Germany Joint technology cooperation research project (Fraunhofer research institute, Germany)
- Aug. 2003: Developed power-saving face exothermic materials and technology agreement-Small and Medium Business Administration
- Nov. 2003: Joint research for power-saving face exothermic materials-Korea Institute of Energy Research
- Dec. 2003: Appointed as a company performing National task of Korea **Electric Power Corporation**
- Jun. 2004: Cooperated tasks for developing next generation face exothermic materials-Ministry of Science & Technology
- Nov. 2005: Acquired certificate of Electric Heating Appliances (E258647) Underwriters Laboratories Inc. UL/CSA
- Nov. 2005: Acquired certificate of Qualification or Electric Heating Appliances(KSOT2, KSOT8) Underwriters Laboratories Inc. Witness Test Data Program (WTDP)
- Nov. 2005: Diploma Awarded to Uniplatek Co., Ltd Hong Chul Yum (President of the WTA (World Technopolis Association), Mayer of Daejeon Metropolitan city) Vladimir Gorodetsky (Mayor of Novosibiysk)
- Dec. 2006: Acquired Russia's safety certification(GOST)
- Dec. 2006: Acquired China's safety certification (CCC;CQ)
- May. 2007: Acquired Europe safety certification (CE)
- Dec. 2007: Korean World-Class Product Award 2007 (Plane Film Heater)

CERTIFICATE OF PATENT

- Dec. 2004: Insulation Cap for Connecting Electrode of Heating Unit The Korea Intellectual Property Office
- Nov. 2005: Method for increasing wear-resistibility of metal products using plasma ion implantation method - The Korea Intellectual **Property Office**
- Nov. 2005: Carbon ink for high temperature use and common use, a continuous type dip-coating apparatus for manufacturing carbon paper, a face-shaped heating unit for high temperature use and common use, and manufacturing method thereof. The Korea Intellectual Property Office
- Nov. 2005: Method for giving anti-static to polymer surface and nondelaminated flexible print circuit board using plasma ion implantation.
 The Korea Intellectual Property Office

CERTIFICATE OF UTILITY MODEL REGISTRATION

Sep. 2005: Protection against the cold ancillary device that has exothermic and radiation functions (The Korea Intellectual Property Office)





















tel.+82-42-867-7685 fax. +82-42-867-7680

email: sales@thermoq.com