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Company Profile

n Zhejiang Huayuan Electric Heat Co., Ltd was founded in 1995. It is a high-tech enterprise which specialized in the R & D and manufacturing PTC (positive temperature coefficient) material and series of warmfloor, heating cable, tubing bundle, resettable fuse and shoes dryer.

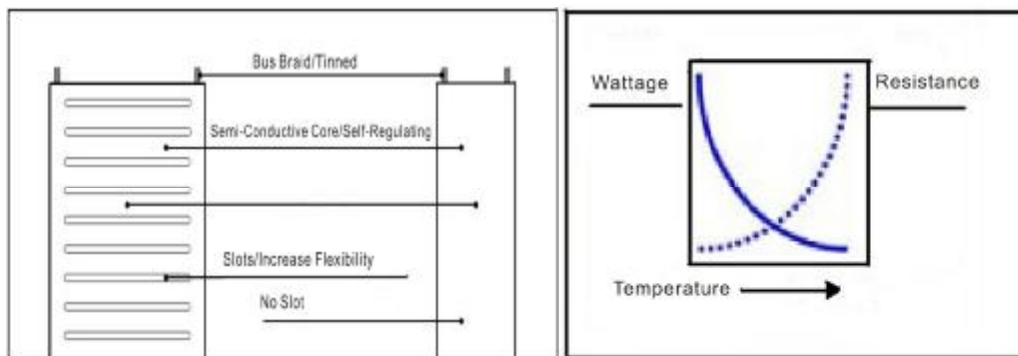
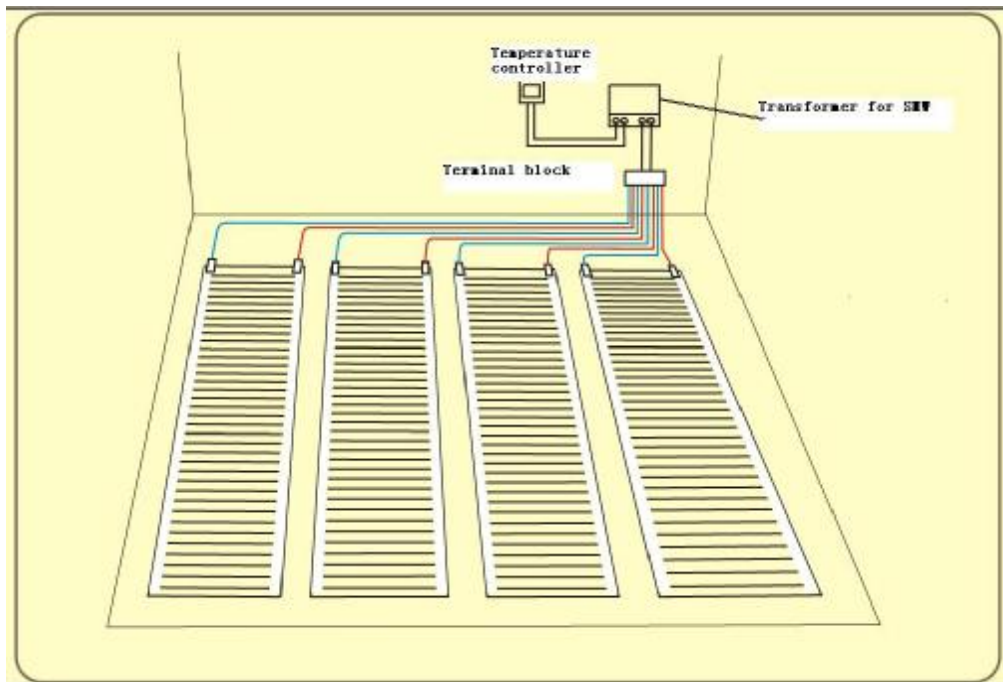
n The product is suitable for industrial electronics, telecommunications, automotive electronics, electric power, chemical, petroleum, pulp and paper, pharmaceuticals and environmental protection industry and construction. It is certified by GB/T19001-2000-ISO9001: 2000 quality management system, GB/T24001-2004-ISO14001 environmental quality management system, GB/T28001-2001 occupational health management system; international CE, UL, ROTH (EU directive), CSA, EMF, IECEX certification.

n National demonstration project of high-tech industrialization;
Key investment enterprise of National Development and Investment Corporation;
Patent for invention of China of “PTC material and preparation method”
The unite draft” National standard of the self-regulating heating cable”.



PTC Warmfloor System

The PTC warmfloor system is based on 1.2 mm thick and 34/24 cm wide heating elements of carbon-enriched polyethylene with copper braid embedded along both edges. All of the plastics are electrically conductive. Because of the resistance in this material, heat is developed. The advantage of this technology is self-regulating effect. The elements are cut to desired lengths and clips are mounted for wire connection. Safety transformers running on 24Volt ensures a safety system.



PTC Warmfloor Products List

- u PTC heating element
- u Transformer
- u Thermostat
- u Connectors – Crimping clips
- u Crimping tools
- u Sealant Tape to seal the connections
- u Wire Black and White
- u Insulation layer
- u Fixing Tape - to fix the Element to the sub-floor however it can also be nailed /stapled to the sub-floor avoiding the outer bus braids
- u Terminal Board Enclosures



The Specification of PTC Warmfloor

Series	Type	Wattage (W)	Voltage (V)	Width (cm)	Sphere of Application
Standard Voltage series	HY2-50W-220V-24	50	220	24	Solid Wood flooring
	HY2-60W-220V-24	60	220	24	Solid, Composite & Engineered Flooring
	HY2-70W-220V-24	70	220	24	Composite Floor & Engineered Flooring
	HY2-80W-220V-24	80	220	24	Wall, Floor Tile & Stone Material Ground
Safe Voltage series	HY2-50W-36V-24	50	36	24	Solid Wood Flooring
	HY2-60W-36V-24	60	36	24	Solid, Composite & Engineered Flooring
	HY2-70W-36V-24	70	36	24	Composite Floor & Engineered Flooring
	HY2-80W-36V-24	80	36	24	Floor Tile, Toilet & Yoga Studio
	HY2-50W-36V-34	50	36	34	Solid Wood flooring
	HY2-60W-36V-34	60	36	34	Solid, Composite & Engineered Flooring
	HY2-70W-36V-34	70	36	34	Composite floor & Engineered Flooring
	HY2-30W-24V-34	30	24	34	Floor Tile, Toilet & Yoga Studio



The Advantages of PTC Warmfloor

ENERGY SAVING

- Low temperature consistently spreads out over a large surface.
- Closeness to the floor surface, less heating of underlying materials.
- Self regulation-effect further reduces the running costs.

VERSATILITY

- Easy installation
- Can be used under most floor covering
- 1,2mm thickness reduces the building height.
- Less compounds on top of the warmfloor system means less waiting time.

SAFETY AND HEALTH

- Low temperature provides better indoor environment.
- 24 Volt tension is harmless in damp conditions, such as in bathrooms.
- Dries out moisture on the floor, avoiding fungus and rot.

ENVIRONMENT

- CO₂-reductions, due to less use of energy for heating.
- Made of polyethylen plastics. 20% consists of recycled compounds. No use of hazardous chemicals or softeners neither in the product itself, nor during production.



The Comparison of 5 Heating Methods

Item	Heating method				
	Gas fired-boiler	Heating Cable	Electrothermal film	Carbon fiber warm-floor	PTC warm-floor
design power (W/m ²)	0.6-1 cubic meter/h m ²	180W-200W	200W-250W	120W-160W	100W-150W
energy	natural gas	electricity	electricity	electricity	electricity
starting power	0.6	200W/m ²	228W/m ²	150W/m ²	150W
operate power	cubic meter/h m ²				100W
Heating cost every month/m ²	1500RMB	1000RMB	1000RMB	750RMB	750RMB
environmental conservation	discharge hot gas and other gas	no discharge	no discharge	no discharge	no discharge
heating effect	linear heating, Preheating time is 12 hours	Linear heating, Preheating time is 4 hours	facet heating, Preheating time is 1 hour	facet heating, Preheating time is 1 hour	facet heating, Preheating time is 1 hour
heat-concentration and temperature overlap	No heat-concentration and no temperature overlap	Heat- concentration and temperature overlap, don't put clothes and quilt on the floor	Heat- concentration and temperature overlap, don't put clothes and quilt on the floor	heat concentration and temperature overlap, don't put clothes and quilt on the floor	No heat-concentration and no temperature overlap, it's safety
floor height influence	occupy the height 8-10cm, can't install on keel plate	occupy the height 8cm, can't install on keel plate	composite board occupy the height 2cm, concrete isn't allowed, can't install on keel plate	floor tile occupy the height 6cm composite board occupy the height 2cm, can install on keel plate	floor tile occupy the height 5cm composite board occupy the height 2cm, can install on keel plate
system life	coil pipe 50years, boiler 10-15 years, critical piece should be changed with 5years	heating cable 30-50 years, power consumption increases because of shield aging 3 years later	Electro thermal film 30 thousand hours power consumption increases because of insulation aging 3 years later	After ageing test,, carbon fiber warm-floor 100 thousand hours	After ageing test, PTC warm-floor more than 120 thousand hours
fit conditions	suit for large area, not suit for keel plate	suit for small area, not suit for keel plate	concrete isn't allowed, not suit for keel plate	suit for large and small area, not suit for keel plate	suit for any area

Frequently Questions about PTC Warmfloor

A1. What is PTC Warmfloor? How safe is the product?

PTC Warmfloor is a strong, flexible, thin plastic heating mat. It is made of an innovative polymer blend that heats when electricity is passed through the material. Unlike other types of radiant floor heating, PTC Warmfloor has the unique ability to self-regulate. So it will not overheat. To provide power continuously along its length, a flat bus braid is embedded in the plastic sheet heater along each edge. Our system is energy efficient when continuously heat, allowing the self-regulating nature of the heating elements to control the floor temperature.

PTC Warmfloor is a very safe product and ideally suited for bathrooms and other wet environment. Because it is mainly a polymer, it will be unaffected by moisture. PTC Warmfloor is a low voltage system (24V).

A2. What types of floors can PTC Warmfloor be used under?

PTC Warmfloor provides such even and gentle heat that it can be used under almost any floorings including carpet, laminate, marble, stone, tile and wood, etc.

A3. Where else in the house can PTC Warmfloor be used?

PTC Warmfloor can be installed under driveways and paths to prevent snow and ice build up.

PTC Warmfloor is ideal for those hard to heat places e.g. basement rooms, conservatories and loft spaces.

PTC Warmfloor can be used as radiant wall heating.

PTC Warmfloor can be placed behind mirrors to prevent misting.

PTC Warmfloor can help plants to grow in greenhouses.

A4. Can PTC Warmfloor be installed under an existing floor?

Yes. As long as you have accessed to the sub floor, PTC Warmfloor can be installed between floor joists without altering your existing floor. We highly recommend insulation below the elements.

A5. Can PTC Warmfloor overheat?

Because of its polymer design, PTC Warmfloor cannot overheat. As the material gets warmer, a little electricity passes through the plastic and therefore less heat generate.

It just like having a sensor over the whole floor.
PTC Warmfloor is even approved for using in the hospital beds, as it adapts to the temperature generated by body heat.

Export information

Name of commodity: PTC Warmfloor

MOQ: 1200M

Package: 30M/CTN

CTN size: 26cm*30cm*37cm

Payment: 30% T/T pay in advance, 70% T/T against the copy of B/L.

Lading port: Shanghai/Ningbo

Delivery time: depends on the quantity

