# Thermatek

# Protecting cold store floors against frost heave and condensation

When a new cold store or freezer is installed, an effective thermal barrier under the floor is essential to prevent serious damage from the effects of condensation and frost heave. Thermatek® products provide dependable protection that is easy to install, cost-effective and designed to last a lifetime.

#### The threat of frost heave

If the sub-zero temperatures inside a cold store, cabinet or freezer are allowed to pass into the ground below, then the moisture in the soil will gradually freeze.

As the moisture freezes it expands upwards, putting pressure on the cold store floor, which causes it to crack and bow.

This quickly deteriorates, resulting in an uneven floor that can no longer support shelving properly and is hazardous to walk or drive on.

#### **Damage from condensation**

If cold store, freezer or chill cabinets are installed on upper floors, the low temperatures can pass down into the floor and through to the ceiling below.

In the rooms below, moisture in the air will condense on the cool ceiling, creating water droplets that drip down.

This can result in water damage to goods, machinery or office equipment, as well as creating a slip hazard in working areas and walkways.

#### **Practical solutions**

Thermatek products prevent the low temperatures within cold stores, freezers and chillers from passing into the floor or ground below. They create a highly effective thermal barrier, using a series of low voltage heating elements, managed by an efficient, active control system.



Unit 5a, Station Yard, Station Road, Hungerford, RG17 0DY Call +44 (0)1488 684 888 | sales@thermatek.co.uk Thermatek<sup>®</sup> is a registered trademark of Safeguard Electronic Systems Ltd.

QMS 9001 : 2015 Doc. Ref. MK-TM-2.3

Header and Footer Images courtesy of F

Certificate No:14132701

# Thermatek products for frost heave and condensation prevention

Thermatek is a recognised leader and innovative manufacturer of systems for preventing frost heave and condensation beneath cold stores and freezers. We can supply standalone products for installers and offer an expert design service so that every installation is perfectly suited to its environment.

#### The Thermatek control system

All of our frost protection products are managed by a thermostatic control system which delivers outstanding energy efficiency and reliability.

As well as maintaining the optimal temperature for the thermal barrier, it can detect faults in the circuits and elements, providing visible and audible warnings and a system of error codes for maintenance engineers.

# ThermaMod – modular, easy installation

This system is ideal for any size of cold store, including those where height is restricted.

Heating elements and sensors are incorporated into flooring grade insulation which are laid directly on top of the final flooring surface.

These modular panels are quick and easy to install. Every system is supplied as a custom kit, including the controller, sensors, modular panels and wires.

#### ThermaTrad – concrete encased

The original Thermatek frost protection system, which provides a highly effective solution for larger installations. Heating elements are laid on the subfloor and covered with a concrete screed before the final flooring surface is laid.

ThermaTrad is supplied as a custom kit, including the controller, sensors, heating elements, wires and fixings.

# **Thermatek Thresholds**

Thermatek ramp and threshold heating systems are optimised for eliminating ice on cold store and freezer ramps and thresholds across doorways.

A durable, low-voltage, stainless steel heating element is installed, usually when the cold store or freezer is built.

It provides sufficient heat to keep the ramp or threshold frost-free, while using very little energy.

# **Next steps**

To enquire about or order any of our products or to hear about our expert design service, please:

Email sales@thermatek.co.uk

or call +44 (0)1488 684 888.



9001 : 2015

Certificate No:14132701

REGISTERED

# Thermatek - the company to warm to

Unit 5a, Station Yard, Station Road, Hungerford, RG17 ODY Call +44 (0)1488 684 888 | sales@thermatek.co.uk Thermatek® is a registered trademark of Safeguard Electronic Systems Ltd.

Doc. Ref. MK-TM-2.3