

## Enviro-Therm

### Energy Saving Paint

Energy conservation has directed a global trend towards developing a sustainable and efficient methods in energy use in order to decrease energy consumption. Reducing energy consumption can result in financial savings and increase human comfort.



Enviro-Therm energy saving paint has been designed to reduce energy consumption and provide a comfortable environment. Enviro-Therm achieves this by slowing down the rate of heat lost (transfer) through the fabric of the building.

Unlike many of our competitors we understand that it's impossible to retain a constant temperature within a room. Therefore the Enviro-Therm concept is simple, by introducing an additive (micro-sphere's) into standard, off the shelf house hold paint the passage of heat through the fabric of the building can be slowed down.

Let's look at the science:

#### Heat Transfer – What is it?

There are three ways that heat may be transferred between substances at different temperatures:

- Conduction
- Convection
- Radiation

Let's look at each individually:

#### Conduction:

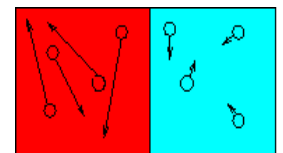
**Heat conduction** is the transmission of heat across matter.

Heat transfer is always directed from a higher to a lower temperature. Denser substances are usually better conductors; metals are excellent conductors.

The flow of heat by conduction occurs via collisions between atoms and molecules in the substance and the subsequent transfer of kinetic energy.

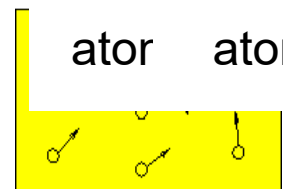
The fast ("hot") atoms collide with the slow ("cold") ones. In such collisions the faster atoms lose some speed and the slower ones gain speed; thus, the fast ones transfer some of their kinetic energy to the slow ones.

This transfer of kinetic energy from the hot to the cold side is called a flow of heat through conduction.



Fast (Hot)

Slow (Cold)



Common Temperature

## Enviro-Therm

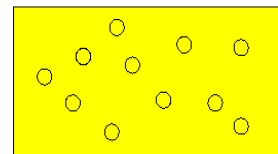
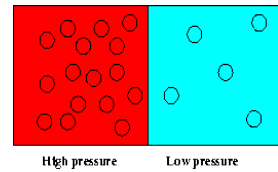
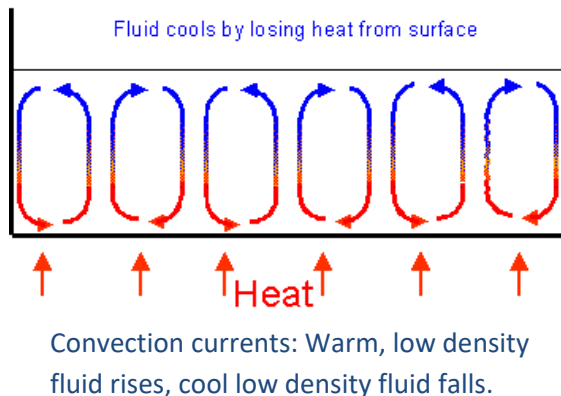
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### Convection:

Convection is the transfer of heat by currents within a fluid (liquid or gas).

It may arise from temperature differences either within the fluid or between the fluid and its boundary.

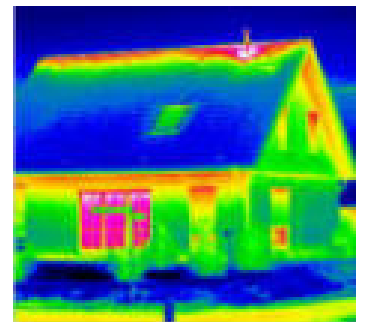
Convection is the flow of heat through the macroscopic movement of matter from a hot region to a cool region, as opposed to the microscopic transfer of heat between atoms involved with conduction.



Flow of material through a pressure difference

### Radiation:

**Thermal radiation** is electromagnetic radiation from an object that is due only to the object's temperature. This is how heat is transferred, for example, from the radiators or fire in a house moving through space - such a transfer cannot occur via convection nor conduction, which require the movement of material from one place to another or the collisions of molecules within the material. Radiation can be visible (e.g. light) but is mostly infrared light - detectable only with special infrared detectors.



Enviro-Therm has been developed with our environment in mind; specially formulated to lower your carbon footprint creating less impact on our world.

### HISTORY on micro-spheres.

The Enviro-Therm micro-spheres concept is not new. Many sub-sea insulation systems work on this very concept.



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### Energy Saving Paint

It is no secret that air is a good insulator:

- ✓ Double glazing. Double glazing works by creating a void (air gap) between the environment.
- ✓ Mineral wool loft Insulation. Works by creating layers of fibre that trap the air.
- ✓ Microspheres. Microbubbles of air.

All the above only allow us to manage and slow the rate of heat loss “remember it’s impossible to indefinitely retain heat”.

With the continual increase in energy costs and household utility bills expected to rise. Enviro-Therm Energy saving paint, together with an intelligent and proactive approach to energy conservation is considered an effective method to decrease your energy consumption, reduced energy consumption will inevitably result in financial savings.

A limited introductory offer of buy two get one unit free