



What Makes Comfortboost Work

In homes, 75% of heat loss occurs in the form of radiant energy escaping through walls, floors and ceilings. Comfortboost acts as a reflector of that energy. As a result, 97% of the heat or cold is reflected back in the direction it came from. This means that floors with the Comfortboost membrane will maintain 97% of the radiant heat energy or air conditioning that would have been lost through the floor.

The Science of Heat Transfer

Heat transfer is the generation, use, conversion, and exchange of thermal energy and heat between physical systems. Heat transfer has the following modes.

Conduction or diffusion- The transfer of energy between objects that are in physical contact

Convection- The transfer of energy between an object and its environment, due to fluid motion

Radiation- The transfer of energy to or from a body by means of the emission or absorption of electromagnetic radiation

Mass transfer- The transfer of energy from one location to another as a side effect of physically moving an object containing that energy

When an object is at a different temperature from another body or its surroundings, heat flows so that the body and the surroundings reach the same temperature, at which point they are in thermal equilibrium. Such spontaneous *heat transfer always occurs from a region of high temperature to another region of lower temperature*, as required by the *second law of thermodynamics*.

The final major form of heat transfer is by radiation, which occurs in any transparent medium (solid or fluid) but may also even occur across vacuum (as when the Sun heats the Earth).

Shiny metal surfaces have low emissivities both in the visible wavelengths and in the far infrared. Such surfaces can be used to reduce heat transfer in both directions; an example of this is the multi-layer insulation used to insulate spacecraft

http://en.wikipedia.org/wiki/Heat_transfer

http://en.wikipedia.org/wiki/Thermal_radiation

Thank you,

Don Snider
Canadian Sales Manager
Vinyl Trends Inc.
519-589-0384
don@vinyltrends.com