

**thermo
emulsion**

Insulation...in a tin.

The paint that acts like a flask.

- Thermal Radiation Reflectance
- Resistance in Heat Transfer
- Water Repellence



from
NUTSHELL[®]
natural paints

Now, using Thermo Emulsion from Nutshell, walls can be insulated with a paint!

Via the use of Nano and Micro technology, Thermo Emulsion is a revolutionary new paint that resists thermal transfer through walls and other surfaces, and creates a thermal barrier by reflecting over 92.35% of the infrared spectrum so retaining heat in winter or reflecting it away in summer.

(Please email us at: enquiries@nutshellpaints.co.uk to request more technical information in our detailed case studies).

How can paint insulate?

Heat is transferred by the infrared spectrum of light and by conductivity. Reducing them significantly reduces the amount of heat that can pass through a surface. The nanoparticles also prevent moisture from freely penetrating the paint surface. Temperature variations within the surface (thermal bridges) are also reduced so condensation is reduced. The result is less heat transfer, lower levels of moisture and less mould and mildew.

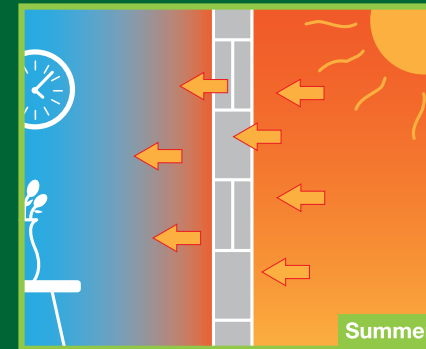
Nano Technology

This refers to the scientific field involving microscopic structures usually below 100nm. One nanometer (NM) is one billionth of a meter (10⁻⁹m). Thermo Emulsion is our own Nutshell Eco Emulsion containing billions of tiny SurfaPore reflective ceramic microspheres also acting as small vacuums within the paint, so like billions of small flasks keeping heat in or out, as required. Their presence does not affect applicability, viscosity, elasticity or colouration.

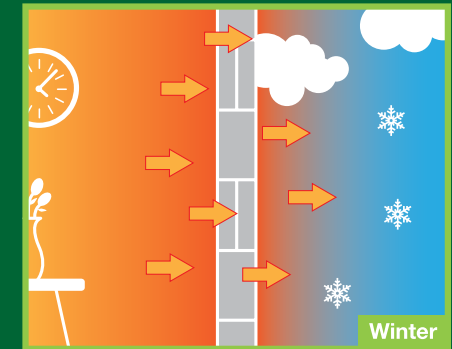
Reduced CO² footprint

The increased energy efficiency achieved by Thermo Emulsion results in a reduced CO² footprint, a positive effect on the environment and a more comfortable environment to live in.

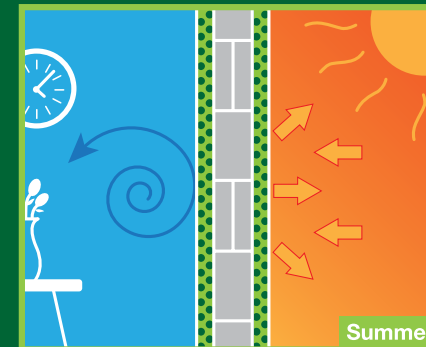
Thermo Emulsion NOT APPLIED = Heat Inflow
(External heat flows in through wall)



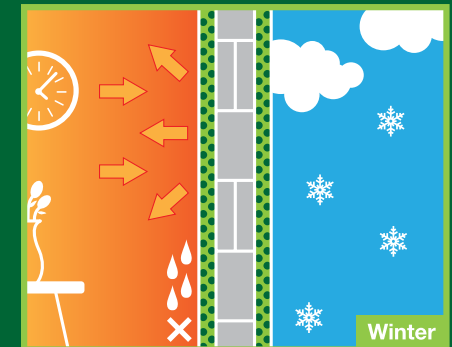
Thermo Emulsion NOT APPLIED = Heat Outflow
(Internal heat flows out through wall)



Thermo Emulsion APPLIED = No Heat Inflow
(Prevents heat inflow & retains internal coolness)



Thermo Emulsion APPLIED = No Heat Outflow
(Prevents heat outflow & retains internal temperature)



 = Thermo Emulsion paint application

thermo emulsion

Insulation...in a tin.

- Water-based thermal insulating paint
- Creates a thermal barrier by reflecting over 92.35% of the infrared spectrum
- Reducing condensation to give Class 1 resistance against fungi & algae growth
- Available in both Internal and External Emulsions
- Available in a range of colours
- Easy Clean
- Touch dry in 1-2 hours
- Available in 2.5L, 5L & 10L tins
- Coverage 10-12m² per litre
- VOC levels of under 3g/L
- Application – Brush, Roller, Airless spraying



Image of Thermo Emulsion with the majority of spheres (as % of total population) under 5 micron. Image taken with a Scanning Electron Microscope (SEM).

Image: 0008 10KV X500 10µm WD39

Nutshell natural and ECO friendly paints will leave your body and mind relaxed, your conscience clear and will allow your lungs and wall to breath freely.

All Nutshell products are completely free from vinyl resins and harmful petrochemical solvents.

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