9.2.6_A ENERGY DIAGRAM GLOSSARY - HEAT PROPOSED CONSTRUCTION AND ENERGY METHODOLOGY DECEMBER 2023

INFRA RED HEATING

Infra-red heating was originally developed by the University of Stuttgart who were charged with trying to create an energy efficient heating system which was effective, easy to install, and completely safe. Using industry waste materials, the University engineered a far infra-red heating system which was sustainable, had great carbon reducing credentials, and produced radiant heat which could travel up to three and a half metres.

The technology has proven popular with homeowners. 100,000 linear metres of carbon fleece far infra-red heating have been fitted to date and when tested, the system has proved to be extremely efficient and a viable alternative to gas and air source heat pumps.

Carbon fleece heating produces electrically powered radiant heat. It is made from an ultra-light and ultrathin material. The systems can be installed directly behind plasterboard (DRYTEC) as part of the plaster skim (Fleece) or beneath laminates P.E.T.

The heating units are designed using a safe 36v system that link to a high quality transformer for surface or concealed mounting. All systems can be operated either using our own 'self learning' thermostats or with most proprietary zone control systems such as HIVE. Installation times are minimal using an easy to use installation manual and tailored layouts designed for each building. No specialist trades are required.

Using Infrared will allow you to reduce the thermostat by up to 2 degrees and still achieve an air temperature of 21 degrees. Each degree you turn the thermostat down by equates to a 6% energy saving.





MIXERGY TANK

Conventional hot water tanks heat all of the water, irrespective to how much hot water is desired by the consumer.

This wastes energy heating water that isn't desired by the consumer and can result in long heating times.

The Mixergy tank differs to conventional tanks in three fundamental ways:

Mixergy allows you to head the water by volume, instead of time.

Sensors monitor the temperature and make hot water volumes measurable.

Ability to remote control the Mixergy tank from a smartphone.



MVHR - MECHANICAL VENTILATION HEAT RECOVERY

MVHR is an essential element of an airtight low energy building. If a building is airtight it will lose less heat and consequently reduce the amount of heat it needs.

MVHR systems provide a constant supply of clean fresh air in a house while recovering over 90% of the heat from the 'stale' air as it is extracted. MVHR systems also regulate Relative Humidity to between 40% and 60% which optimises air 'health' and optimises CO_2 levels to maximise occupant comfort.



PIPPIN BARN



