# FAQs

## 1. What is heat and heat flow?

Heat is energy or more precisely transfer of thermal energy. As energy, heat is measured in watts (W) whilst temperature is measured in degrees Celsius (°C) or Kelvin (K).

Thermal energy travels from hot material to cold material. Hot material heats up cold material, and cold material cools down hot material.

## 2. What are the ways in which heat transfer happens?

Heat transfers in three ways:

a. Conduction
b. Convection
c. Radiation

## 3. What determines the specific heat capacity of a material?

The amount of heat needed to change the temperature of a body depends on

a. The material of the body,
b. The mass of the body, and .
c. The change in temperature (positive or negative).

## 4. What is U-value?

- Thermal transmittance, commonly known as the U-value, is a measure of the rate of heat loss of a building component. The U-value is the sum of the combined thermal resistances of all the elements in a construction, including surfaces, air spaces, and the effects of any thermal bridges, air gaps and fixings.
- The U-value is expressed in watts per square meter, per degree Kelvin, or W/m2K.

**5. What is time lag?**

The time delay due to the thermal mass is known as a time lag. The thicker and more resistive the material, the longer it will take for heat waves to pass through. The reduction in cyclical temperature on the inside surface compared to the outside surface is knows and the decrement.