

# Sustainability



Insulation is one of the cheapest and easiest ways to improve the energy efficiency of a building, whether old or new. Greater energy efficiency means that less energy is required to heat or cool buildings. In turn this results in lower fuel consumption and lower emissions of environmentally harmful carbon dioxide. Moreover, the waste products from panel production can be utilised, since the steel sheet can be recycled and the rigid polyurethane foam can be incinerated and use made of the energy generated. During their life cycle, **Master** panels save 100 times the energy used in their production.

To reduce environmental impact, **Master** panels offer:

**Excellent energy efficiency:** leads to energy savings and reduced CO<sup>2</sup> emissions.

**The panels save 100 times the energy used in their production.**

**Minimum thickness:** minimizes the footprint of the building and use.

**Reduces the size of the structure:** lower environmental impact of the building structure.

**Transport:** being very light and thin, the insulation requires less delivery transportation, giving a low environmental impact.

**Our waste products:** 95% of our waste products are recyclable.

**Ozone friendly:** Our Processes and Products are CFC and HCFC free

## Recycling sandwich panels:

The metal cover of injected polyurethane sandwich panels can be recycled following standard procedures for this type of material.

The insulating core of the panel is not affected by any European directives on dangerous products. Three recycling techniques can be used. The choice of one or another depends on characteristics of the polyurethane foam used in the core of the panel, the after use and the cost:

- **Mechanical Recycling.** Using processes of crushing, granulating, grinding or pulverisation, particles of recyclable material are obtained that will be used for new polyurethane products.
- **Chemical Recycling.** This is based on the application of various chemical and thermal processes which decompose the foam into low molecular weight fractions. These are used to regenerate the diisocyanate which, together with the polyol, allows the production of new pieces of polyurethane.
- **Incineration.** Energy recovery through incineration. This technique obtains thermal and/or electrical energy from panel core waste. Current incineration technology ensures that emissions are controlled, thus minimizing their potential environmental impact.

