

## Technical insulation materials

This document describes the general conditions for the storage of technical insulation materials manufactured by Thermaflex and accessories. If Thermaflex products are not stored and handled as described in this document, Thermaflex cannot be held liable for any damages to the packaging or products.

## Storage conditions

### Tube and Sheet insulation

The packaging unit of Thermaflex technical insulation tubes consists of a cardboard box. Since this type of packaging is not resistant to rainfall, snowfall or any other type of moisture, the original perforated cardboard box should be stored in a closed warehouse. The storage space in the warehouse must be dry and well-ventilated to minimize moisture formation. High moisture levels negatively affect the cardboard packaging material which can cause sagging and thereby increase the risk of mechanical damage to the insulation material, especially in the case of multi-layer storage. High moisture levels do not affect the technical parameters of the insulation material. For sheet insulation, packaged in plastic bags, similar conditions apply.

Storage without packaging is not recommended. If the insulation material is not in the original perforated cardboard box or foil, the insulation should be packed into a similar packaging with access of air. Do not wrap the insulation material in any foil for storage, such as stretch or aluminum foil, without or with little access of air. Do not expose insulation material to direct or indirect sunlight and other UV radiation, or near heat sources.

Our technical insulation material does not require any special storage temperature. However, we recommend a storage temperature between -20°C to +50°C to ensure an optimal retention of the insulation properties.

### Adhesive backed product

Adhesive backed technical insulation product must be stored in a cool dry place and away from direct sunlight due to the effects of temperature and humidity on the adhesive coating. Ideal storage conditions for adhesive backed product are 40-75% Relative Humidity and temperature range of +15 to +30 °C. Adhesive life is a factor of storage conditions. The life expectancy of the adhesive under the recommended conditions is 1 year.

### ThermaGlue

The storage temperature for ThermaGlue should not be lower than +10°C and not exceed +35°C. The shelf life is 12 months from the production date in the original and unopened packaging.

### Accessories

For Accessories respect the relevant datasheets and descriptions on packaging of the products.

# Storage Methods

## Tube Insulation

The Thermaflex cardboard box for insulation material can be stored both vertically and horizontally. To maintain an optimal quality of both the product and packaging, boxes should be placed on pallets for storage. We do not recommend storing the boxes directly on a rack (without a pallet) or on the floor.

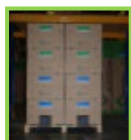


The original Thermaflex cardboard box is marked with labels that allow easy identification of the product type and size, both for vertical storage (on the front side) and horizontal storage (on the top flap).



## Vertical storage

Boxes can be stacked vertically on Euro, industrial or larger pallets, and up to 2 layers high, without damaging the packaging and/or insulation. Every added layer of the pallets causes damage to the packaging and insulation material.



## Horizontal storage

For horizontal stacking, the pallets should have at least the same length as the cardboard box in order to avoid any damage to the packaging and the insulation material.



Thermaflex boxes may be stacked on either side of the box when placed horizontally. The number of layers when stacking on the wider side, however, should not exceed 4 to prevent damage to the packaging or insulation material. When stacking boxes on the narrow side of the box, the number of layers should not exceed 3.

Removing insulation tubes from the cardboard box when stacked can cause small damages to the packaging (especially from the lower layers), such as a collapse of its edges. Any added layer of pallets above 4 can cause similar damage to the packaging, and cause crushing of the insulation material.

Avoid any type of high compression onto the technical insulation tubes, as this may cause permanent deformation.



The perforation is located on the top side of the box and is designed to provide easy access to the insulation tubes. After placing the boxes horizontally, the perforation should be on the lower flap of the box with the label above it. After opening, the insulation tubes will fall to the bottom of the box, ensuring easy access.



The picture above demonstrates the only correct way of opening the Thermaflex box. Any other way of opening during storage risks causing damages to the box and insulation material, due to high compression for example.



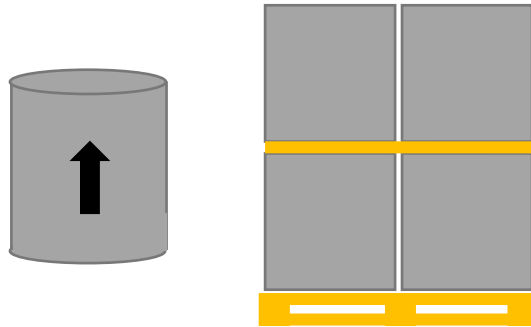
Do not lay the box the other way around as it will prevent easy access to the insulation material.



## Sheet Insulation

Thermaflex Sheet insulation material should only be stored in a upright / horizontal position to maintain optimal quality of product and always be stored on pallets. We do not recommend storing sheet rolls directly on a rack (without a pallet) or on the floor.

For sheet insulation, storage allows for a maximum stacking of 2 levels to avoid compressing of the lower layer. No pallets may be stacked on top of the sheet material and separate the two layers with carton to protect the first layer.



## Dimensions

### Tube Insulation

The standard Thermaflex cardboard packaging for insulation tubes comes in the following dimensions for 1, 1.5 and 2m long tubes:

- 400x60x2050mm (standard A-box)
- 400x400x2050mm
- 300x400x2050mm
- 300x400x1570mm
- 400x600x1050mm

The following size is for tube insulation in coils packed in cardboard packaging:

- 600x600x250mm

### Sheet insulation

The standard Thermaflex insulation sheet comes in the following dimensions:

- 1000x800x800mm
- 1000x1180x1180mm
- 1070x470x470mm (box, Short roll)

## Transportation

When transport insulation tubes or sheet, package it in a box or with a sun and heat-resistant foil.

This is because thermoplastics melt if they exceed the maximum temperature. When wrapped in a transparent foil under the influence of the sun, the temperature build-up is higher than the maximum temperature of the thermoplastic and the material will therefore melt.

This can be prevented by protecting the materials from heating by strong UV radiation from the sun.

This is also the reason why Sheet insulation material is packed on roll in white plastic UV protective foil.