

**INSUPLAST**  
by **EWONA**®

VENTILATION DUCT INSULATION

# EASY, FAST AND COMFORTABLE INSTALLATION – NO DUSTING, NO ITCHING.

Insuplast ventilation duct insulation products use material supplied by Ewona Finland Oy. The Ewona® material is manufactured from thermally bonded polyester fibres. The proportion of recycled fibre is 50% or more. The products have been granted the right to use the Allergy Label of the Finnish Allergy, Skin and Asthma Federation and have also been awarded the M1 emission classification.

The material does not absorb moisture and therefore does not provide a growth medium for moulds or other microorganisms. Due to the dust-free nature of the products, installation is easy and working without personal protective equipment does not irritate the respiratory system or skin. Ewona polyester fibre insulation does not release harmful particles into indoor air during use.



## Use

Insuplast ventilation duct insulation is suitable for the thermal insulation of ventilation ducts, primarily in detached and terraced house applications. As the material does not absorb moisture, it is a healthy and safe solution for all types of construction.

In addition to thermal insulation, the products also provide sound attenuation. The same material is used in Ewona sound insulation products.



## Products

Our product range includes insulation for ventilation ducts in sizes Ø100, Ø110, Ø125, Ø160, Ø200 and Ø250 mm. The products include straight insulation sections, 45° elbows and 90° elbows. Insulation thicknesses are 50 mm or 100 mm.

45° elbows are available only with 100 mm insulation thickness. T-branches are available only for 100 mm insulation thickness. For 50 mm insulation thickness, T-branches are recommended to be fabricated on site by cutting straight insulation sections. Upon request, we also supply tools suitable for processing the insulation products, including an insulation knife and a sharpening tool.

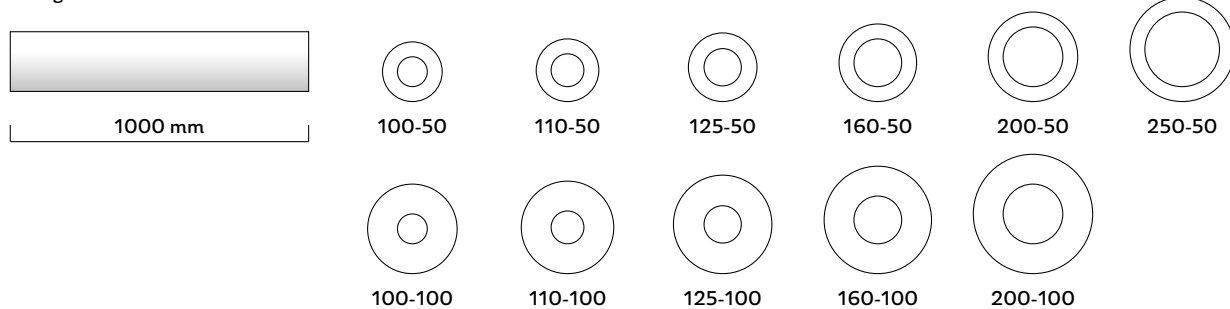


An attic of a detached house insulated with Insuplast products before the installation of blown insulation.

If the ducts are embedded within the blown insulation layer, a 50 mm duct insulation thickness is sufficient. If the ducts are left exposed to open air, an insulation thickness of 100 mm is required.

## Insuplast Ventilation Duct Insulation Product Range

### Straight insulation sections

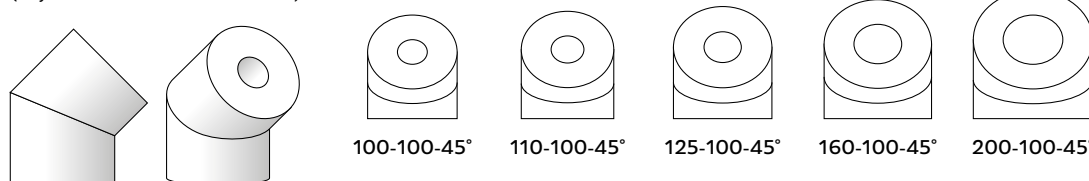


### 90° elbows



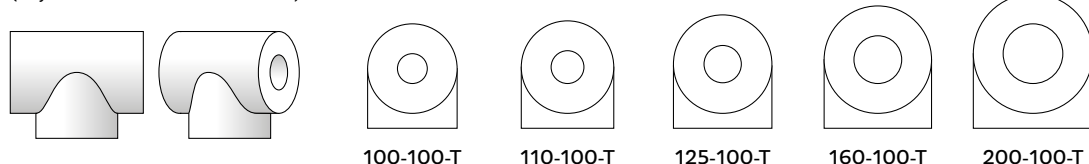
### 45° elbows

(only with 100 mm insulation thickness)



### T-branches

(only with 100 mm insulation thickness)



### Tools

Insuplast supplies an insulation knife and a sharpening tool, which make processing the insulation material fast and easy. The blade must be kept sharp to ensure proper cutting of the fibres. Conventional tools intended for cutting mineral wool insulation are NOT suitable for cutting polyester fibre insulation.

Other suitable tools for cutting the material include, for example, a hole saw modified with a knife-type blade, as well as blades for a multi-tool or jigsaw from which the teeth have been removed and the blade sharpened to a knife edge.



## Impact Resistance

Insuplast ventilation duct insulation products are impact resistant, class 1A, according to EN 13964.



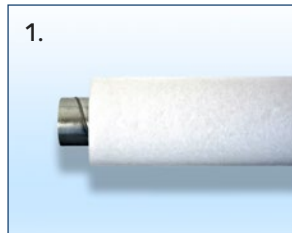
## Installation

Insuplast ventilation duct insulation products are easy and comfortable to install, as they do not generate dust or cause itching. Due to the insulation material itself, the use of personal protective equipment is not required. However, ventilation ducts are often installed in conditions where other construction materials and working at height may pose risks. Always ensure the use of appropriate personal protective equipment.

### 1. INSULATION WITH 50 MM THICKNESS *(ducts embedded in blown insulation)*

50 mm insulation is installed using straight insulation sections and 90° elbows. For gentler bends, the insulation can be bent over the duct by pulling it into place. T-branches can and should be fabricated on site by processing the insulation material. Insulation is carried out in conjunction with the installation of the duct system.

Insulating straight duct sections in advance is recommended, in a spacious and safe working area, after which they can be lifted to the installation location already insulated. You can insulate only the amount corresponding to the ducts being installed, as the extremely lightweight insulation does not increase the weight of the duct system.



1.

#### 1. Insulate the straight ducts first

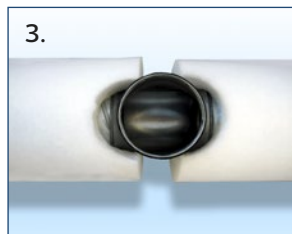
Pull the straight insulation sections over the duct so that a small clearance is left for fastening the ventilation ducts with rivets. This makes joining the duct sections together in the attic easier. Once the duct sections have been connected, insulate the riveted joint using a split insulation section that is clearly longer than the rivet opening. This ensures that the joints are pressed firmly against each other, forming a butt joint.



2.

#### 2. Insulate the bends as the installation progresses

Install the duct fitting and insulate it by pulling a straight insulation section (50 mm insulation and bends up to max. 45°) or a prefabricated elbow insulation over the fitting. Ensure that a butt joint is formed between the insulation sections. Once the bend has been insulated, installation of the next duct sections can continue.



3.

#### 3. Insulating a T-branch, main duct

An easy way to insulate a T-branch is to cut semicircular recesses at the ends of two insulation sections and pull them against each other on both sides of the T-branch collar. If the opening is made, for example, in the middle of an insulation section, split the insulation up to the opening and pull it over the T-branch collar. The split insulation sections are secured with binding wire, not tightly, but only to ensure that the split surfaces align correctly against each other.



4.

#### 4. Insulating a T-branch, branch duct

The insulation section extending upward from the T-branch collar is cut with an insulation knife as shown in the illustration and pressed against the T-branch. Due to the softness of the material, any cutting irregularities are concealed when the insulation sections are pressed firmly against each other.

### 2. INSULATION WITH 100 MM THICKNESS *(in cold spaces)*

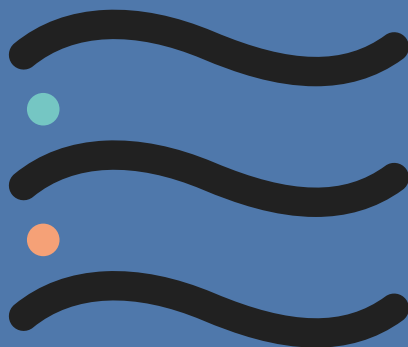
Manufacturing components such as T-branches from 100 mm insulation is not as easy as with 50 mm insulation (see above). To achieve a tight and properly sealed result, we recommend using prefabricated components supplied directly from the factory. Otherwise, the insulation is installed in the same manner.

When insulating ventilation ducts with Insuplast insulation products, it is permitted to use polyurethane, stone wool or glass wool insulation simultaneously.



## Material Disposal

Ewona Insuplast ventilation duct insulation products can be delivered to textile recycling at the end of their service life.



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