

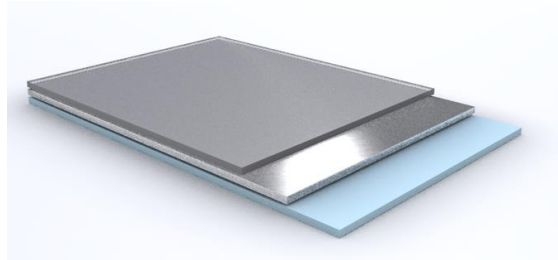


TTM ISOLPAK ALU

User Manual

TTM ISOLPAK ALU Technical Characteristics

Manufacturer's code:	TTM ISOLPAK ALU
Width:	1000, 1065, 1200, 1225, 1555mm
Working temperature:	-25°C to +75°C



Construction: High quality Multi-layer laminate with an aluminium layer inside

Application:

- ⊕ Hot insulation
- ⊕ Cold insulation
- ⊕ Indoor
- ⊕ Outdoor

Typical utilisation:

- ⊕ Construction Industry
- ⊕ Chemical & Petrochemical Industry
- ⊕ Power Plants
- ⊕ OEM
- ⊕ Food Industry
- ⊕ Shipbuilding / Offshore
- ⊕ Pharmaceutical Industry
- ⊕ Cement Factories

Storage temperature: -25°C up to +60°C

Chemical resistance: Please see TTM ISOLPAK ALU brochure or contact TTM technical service

1) TTM ISOLPAK ALU Product Description

TTM ISOLPAK ALU is an innovative insulation cladding material which is used instead of aluminium or stainless steel sheet metal. This multi-layer laminate consists of several layers of plastic material with an aluminium layer inside. This aluminium layer guarantees an effective vapour barrier, 100% water tightness and appealing look.

The cover film of TTM ISOLPAK ALU is UV-light stabilized and can be therefore used in indoor and outdoor applications. TTM ISOLPAK ALU is flame retardant and has a memory effect which avoids dents and wrinkles on the clad.



2) Handling, Transportation & Storage

TTM ISOLPAK ALU materials must be handled, transported and stored with care.

Mechanical damages like scratches, surface cracks or high mechanical stress must be avoided to ensure the UV-light resistance, water tightness and fire blocking properties of the laminate.

Damaged TTM ISOLPAK ALU material affected by careless handling may not be installed in any case!

TTM ISOLPAK ALU laminates shall be stored originally packed in clean warehouses only.

Stacking of the supplied pallets is not permitted at any time.

All TTM ISOLPAK ALU laminates can be stored at a temperature between -25°C and $+60^{\circ}\text{C}$.

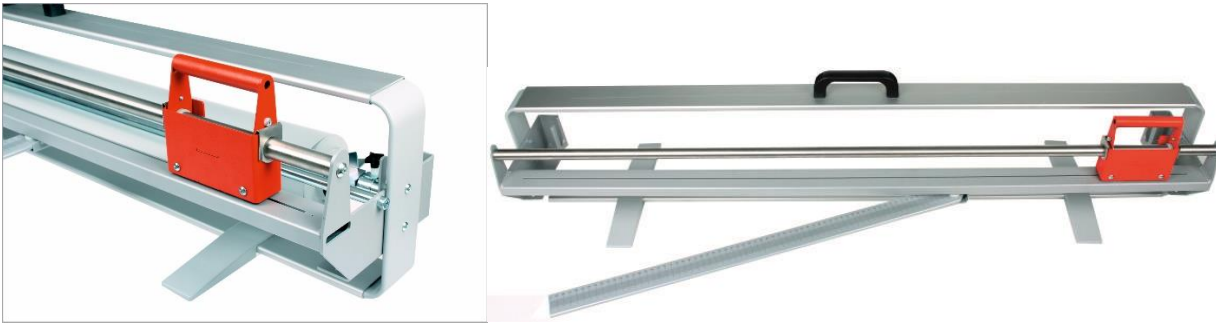


3) TTM ISOLPAK ALU Installation

a. General

This installation manual is a manufacturer's recommendation. The final way of application has to be decided by the installing party who has to take the responsibility for the professional and proper installation.

Before installation make sure that the insulation material is dry and durably applied. For easy and proper cutting of TTM ISOLPAK ALU from the roll we recommend using the TTM ISOLPAK ALU Cutting Table. The joints of the cladding shall overlap 20 – 50mm so the workpieces shall be cut accordingly. Ensure that the laminate is not scratched or ripped during this procedure and handle the workpieces with care.



b. Installation on angular work (ducts...)

- For these applications, it is recommended to use standard TTM ISOLPAK ALU materials without curling effect.
- Cut the workpieces as recommended in point 4.1.
- Bend the edges manually according to the shape of the duct and wrap the duct with the prepared workpiece.
- Fix the jacketing manually on the overlap about every 150mm either by using a stapler or plastic rivets.
- Make sure that this fixing is able to resist all mechanical forces which might be applied on the cladding for the whole lifetime of the system!

In case it is not possible to wrap the insulated angular equipment with one working piece of TTM ISOLPAK ALU it is necessary to bond the Jacketing workpieces additionally on the insulation material. For this reason a customary construction adhesive which is suitable to bond PVC (LJ Series 500) or glassfibre (LJ Series 600) with the used insulation material is requested. Take care that this adhesive is suitable for the expected working temperatures.

To achieve water & vapour tightness in indoor applications and in all cases of outdoor use it is a must to seal the joints and overlaps with the TTM ISOLPAK ALU self-adhesive tape!

c. Installation on round work (round HVAC, pipes,...)

For these applications, it is recommended to use TTM ISOLPAK ALU materials with curling effect.

- Install the form parts (elbows, tees) prior to the cladding of the straight lines.

①



②



- Cut the Jacketing workpieces as recommended in point 4.1.
- Curl the Jacketing workpieces around the insulated pipe.

③



- Fix the jacketing manually on the overlap about every 150mm either by using a stapler or plastic rivets.
- Make sure that this fixing can resist all mechanical forces which might be applied on the cladding for the whole lifetime of the system!



Stapler



Plastics Rivets



Nail puncher

To achieve water & vapour tightness in indoor applications and in all cases of outdoor use it is a must to seal the joints and overlaps with the TTM ISOLPAK ALU self-adhesive tape!

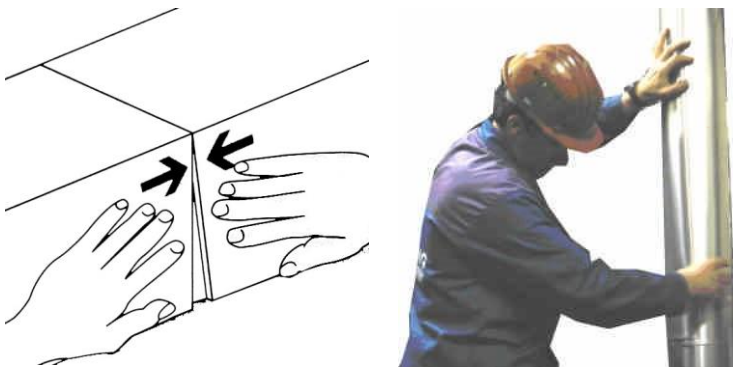
(see point 4.4)

d. TTM ISOLPAK ALU Self Adhesive Tape

TTM ISOLPAK ALU self-adhesive tape is a pure sealing band which is not designed to resist high forces. Therefore, the workpieces have to be mounted mechanically as described in the above points 4.2 respectively 4.3 before fixing the tape. ISOLPAK ALU TAPE 1232X

Verify before application that the surfaces which are going to be stuck together are clean, dry and free of grease. Each contamination of the surface can affect the adhesion of the tape and therefore the durability of the cladding!

- Push the workpieces together and overlap the joints 20 – 50mm.



- Apply the self-adhesive tape full-laminar and free from creases on all joints.



- Particularly the edges and ends shall be pressed with the supplied spatula.
Make sure that the splice is water & vapour tight and stuck together full-laminar.



4) TTM ISOLPAK ALU Maintenance

A correct and well applied TTM ISOLPAK ALU insulation protection is generally maintenance and service free. Anyway, it is recommended to inspect the system at least twice a year to detect possible mechanical damages, deformations or leakages based on non-proper application. Such regular inspections shall assist to detect such critical locations early and to prevent consequential losses. **VERY IMPORTANT:** Standing water on duct work or any will cause a damage to the film.

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