TOPANEL®
THERMO-INSULATING PANELS

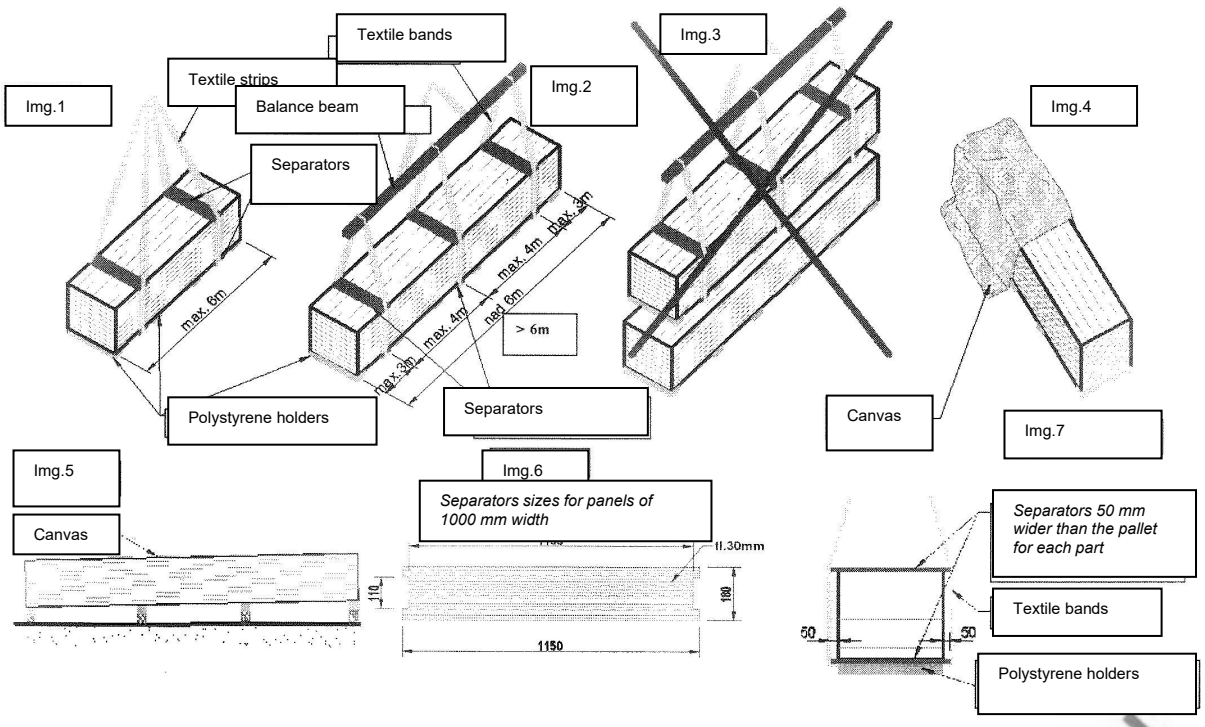
Romania, Rm. Vâlcea, Stolniceni, 63 Uzinei str, county. Vâlcea
EUID ROONRC.J38/410/2008 , TIN no/VAT RO23630951
Account: RO18RNCB0263113206060001 B.C.R. Valcea branch
Share capital 2.000.200 RON, Phone / fax : +40 250.77.30.30

INSTRUCTIONS
- THERMO INSULATING PANELS -

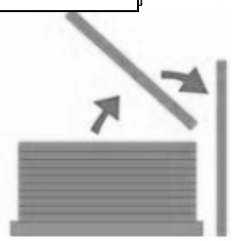
TRANSPORT, HANDLING, STORAGE

Panels are supplied in packs packed with expandable foil on polystyrene holders. The number of panels in the package varies depending on size (thickness, length) and customer requirements, within the limits imposed by the manufacturing technology. They can be transported with technically approved vehicles with lateral loading or loading from above. Surfaces that are in direct contact with the panels must be clean, flat and any sharp objects (e.g. nails) on the floor or parts of the trailer must be covered to avoid damaging the panels. It is recommended to transport the panels in a covered vehicle with an appropriate loading space length, depending on the length of the packages.
It is necessary to attach straps around the packages in order to prevent them from moving inside the loading space during transportation. The carrier is solely responsible for the integrity of the load throughout the transport period. Before you begin to unload the insulating panels, check the condition of the packages. When receiving the goods, the beneficiary has the obligation to check and record any non-compliance found on the transport documents.

Packages can be downloaded manually and / or by forklift - up to 6 m - and / or with a crane and swing crane - over a length of 6 m. Only one package is downloaded, regardless of the length of the panels. Textile / nylon strips with a width greater than or equal to 10 cm and / or spacers at the top and bottom of the pallets will be used to avoid friction marks and scratching of the surfaces. These spacers will be 50 mm longer than the width of the package and at least the width of the textile strips or straps, as appropriate (img. 1). When unloading panels with a length of more than 6 m, it is necessary to use a balancing beam with the textile strips (img. 2). The strips will be stretched by means of spacers in the top and bottom parts of the panels, as shown in img. 6.
The use of cables or metal chains is forbidden when handling panels. Before lifting, check the fastening and correct positioning of the anchor straps as well as their ability to support the weight of the package.
Do not stand under panels that are being moved or handled!
Packages must be stored on hard, uniform, smooth surfaces, at a minimum of 7 cm of land both in the warehouse and on the worksite. As far as stacking is concerned, up to 2 packages can be overlapped for a maximum of 30 days (img. 3). If overlapping occurs, polystyrene spacers with a broad base should be used. It is forbidden to step directly on the package. In order to protect against weathering and UV rays, the pallets deposited on the outside will be covered with insulating protective material (img. 4) and will be slightly inclined to settle on the ground, in order to allow water to drain (img. 5) .



It is forbidden to grip and lift only one side (outer / inner support), because of the risk of separating it from the PUR / PIR/Mineral wool core. To manually manipulate a panel, it must be lifted from the package to the side, avoiding the contact with the panel beneath it Individual manipulation of the panels as well as removing the protective film, should be the task of trained personnel.



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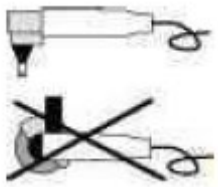
It is forbidden to expose the panels coated with the protective film to direct contact with the sun. The protective film is not UV-resistant, so it should be removed immediately after the installation, at least 7 days after the date of assembly.

Manual transport will be carried out by at least 2 people, depending on the length of the panel, keeping the panel in a vertical position and supporting it on the side with lifting hooks. Always use clean equipment (gripping device, gloves, protective clothing)
giving special care to the edges and corners of the panel.

Panels will be mounted within a maximum of 30 days of delivery (and total maximum of 60 days after the manufacturing date).

INTERVENTION ON THE PRODUCTS/ CUTTING PANELS



Panels are delivered at the lengths specified in the order / contract. However, if changes are still required, we recommend using a punching machine, a manual nibbler or possibly board scissors for sheet metal (guillotine) or a fine-toothed saw. For cutting, at least two people are required: one to cut the other to retain and supervise the material. Cutting materials can be performed even after their assembly in final position, on the building skeleton. In this case it must be checked that they are sufficiently fixed, to prevent the vibration of materials for the duration of the cutting.

It is forbidden to cut the sheet metal with a flex tool, grinder or other devices that cause local overheating of the sheet. Using these tools will automatically void the product warranty. Panels will be cleaned immediately of all resulting materials after cutting, using a brush or by means of an air blower to avoid possible damage to the products (scratching, staining, etc.) or even erosion of materials.

To tighten the screws, it is recommended to use a load limiter tool, in this way the screws will be clamped exactly as needed for an optimal fixing of the panels.

During the assembly of the panels and especially during the installation of the roof, it is necessary to carefully remove all the remaining materials, especially scrap metal, which, by oxidation, can cause damage to the panels.

ACTIVITIES PRECEDING ASSEMBLY. MOUNTING

Before installing the panels, check the alignment of the support elements over their entire length. Any inconsistencies must be rectified. If panels are caught on improper structures, deformations of the panel may occur as well as shadow effects and reflections of light on the metallic surface. The number and type of support wedges are provided by the building designer depending on the wind/ snow-load in the area.
It is not recommended to mount the panels during snow, strong wind, extreme temperatures. All work on panel assembly must be carried out by authorized personnel and in compliance with applicable safety and health regulations.
In order to obtain optimum results in what concerns fire resistance, the following is recommended:
1. Joint's weaving at equal distances of 250 mm with self-drilling screws with dimension of 4.8 x 22 mm, in case of mineral wool insulating-core panels and simple jointing;
2. Application of a fire resistance gasket for sealing the jointing surface between panels, in case of mineral wool insulating-core panels and double labyrinth jointing of the fixing.
For thermal insulating panels intended for installation in environments with temperature controlled from the point of view of the cooling and cold-preserving process, respectively in the case of insulating-core panels of ≥100 mm - 200 mm PUR, it is recommended to apply expandable or rubber gaskets for sealing the jointing surface between the panels in order to ensure an optimal thermal insulation.
The panels are delivered without the sealing gasket.

MAINTENANCE

Annual check-up of the panels	
Inspection points	**Corrective action**
Conditions of pre-painted surfaces (fissures or colour differences)	Repair, where applicable, and repaint
Scratches, impact traces, corrosion	Repair and repaint
Fastening screws	Extract one screw and check if oxidized. Tighten the screws, if necessary
Areas of cutting, especially in the areas directly exposed to external factors	Check oxidation level. Clean and repaint.

All coatings, including those made with metal sandwich panels, require maintenance works. Typology and the frequency of maintenance interventions depends on the product used for the external part (steel, aluminium); in any case it is recommended to inspect the building periodically (at least once a year) and to check the conservation state. It is also recommended for the maintenance of the aesthetic and physical level of the elements and the extension of the efficiency of the protection cover, regular cleaning of the wall/ roof, with special attention for the areas where rainwater remains for longer periods of time and where concentrations of substances may occur, that may attack the metal support.
The main maintenance activity is the cleaning of the panels. The surface of the panels that appear visibly dirty after the inspection can be washed with water and eco soap using a soft brush. The water pressure used for cleaning can have a pressure of up to 50 bar, but the water jet must not be too close or perpendicular to the surface. Near the joints, the water jet must be tilted so as not to endanger the joining of the panels.