

Transportation & unloading instructions

Design of sandwich panels makes it possible to easily, safely and quickly assemble both vertically and horizontally. Panels can be assembled in almost any weather conditions, time is additionally saved and cost is reduced. Good strain resistance of sandwich panels enables to reduce the required size of supporting structures. Width and panel packing have been designed to make optimal use of carrier space.

Product application

Wall sandwich panels with mineral wool core

Roof sandwich panels with mineral wool core

Acoustic sandwich panels with mineral wool core

- **Packaging**

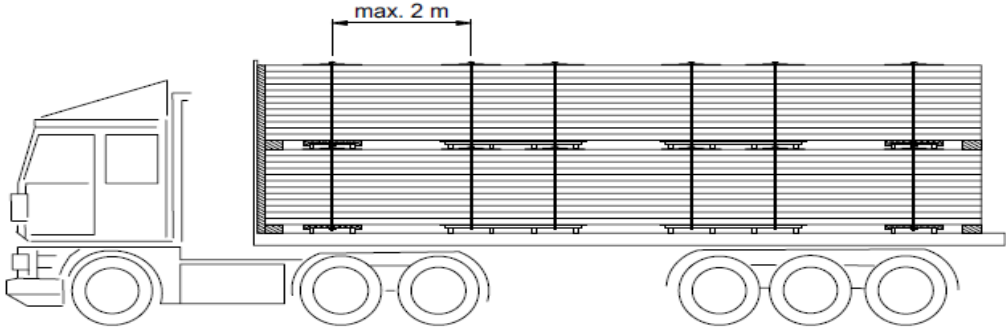
MoT sandwich panels are delivered on polystyrene blocks tightly wrapped with UV protection stretch film. Basic features of panel package:

- package height – max 1.22 m,
- package width – max 1.19 m,
- package length – max 16.0 m,
- package weight – max 2.500 kg.

- **Transport**

MoT sandwich panels can be transported by roadworthy trucks and containers loaded either from the top or the sides. Load-carrying surfaces must be clean. No nails or other sharp objects can protrude from the truck bed or its walls. Protruding objects have to be properly removed, to avoid damage to the panels. The vehicle (truck bed) has to be long enough to ensure complete support coverage for the loaded package. The package is allowed to protrude no more than 1.5 m out off the truck bed. Packages transported either by truck or by container, can be piled into max. two layers (see schetch below). Bearing in mind the condition of highways, the carriers drivers are bound to periodically check (every ~100 km) the condition of cargo fastening and to correct it accordingly. The minimum recommended loading space width is 2.400 mm. The vehicle to carry the panels, should be equipped with cargo straps, minimum width of 50 mm, to secure the cargo on the vehicle bed and the

adequate plastic corners to protect the edges of the top panels. Number of the straps depends upon the panels length; the straps should be spaced approx. every 2 m. Flashing packages carried together with panel packages should be fastened separately from panel packages (with separate straps).



Unloading

Before starting to unload sandwich panels, check the packages condition. The products delivered should always be examined before unloading for possible damages that might have been caused during the transportation. In case that damages during transportation are noted they should be immediately reported to the company by fax along with a readable copy of the dispatch note. Photographs are necessary. The packages should be lifted and unloaded one by one at a time. The packages should be unloaded either with an overhead travelling crane, using a cross-beam or with a forklift depending on forks number and distance, and the package length. In the case of unloading with crane either a cross beam or even better a steel frame should be used to attach the straps.

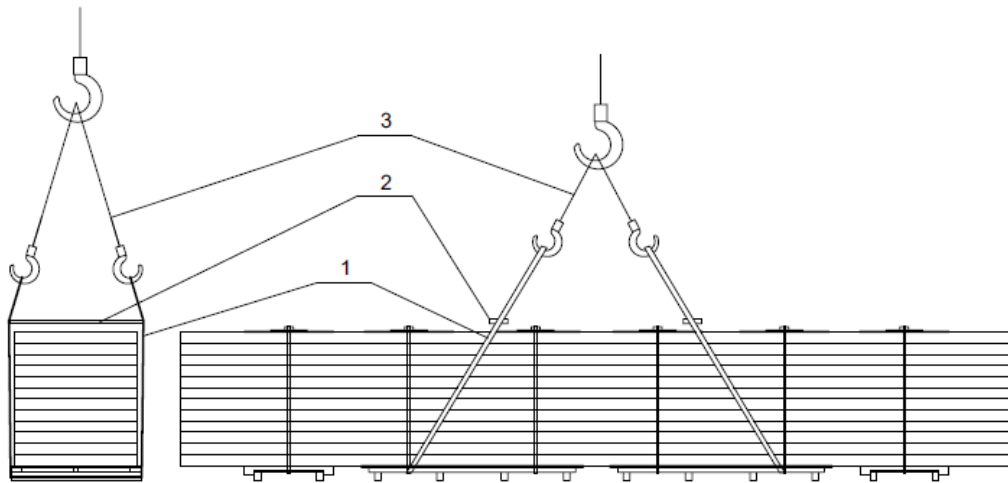


Pic 1. Unloading using crane and steel frame.



Pic 2. Unloading with forklift

When lifting the packages with cargo straps, attached to the load-carrying wooden pallets, use 1.2 m long wooden spreaders – fig. 2, to keep the straps spacing wider than the package, to prevent the top panels from damaging. Attaching the straps to polystyrene pallets is not allowed. For 8-21 m long packages an additional 8 m long cross-beam should be used, as shown in fig. 3.



*Fig. 2. Unloading of panels of ≤ 8.0 length, where:
1 – transport straps, 2 – wooden separator, 3 – lifting sling.*

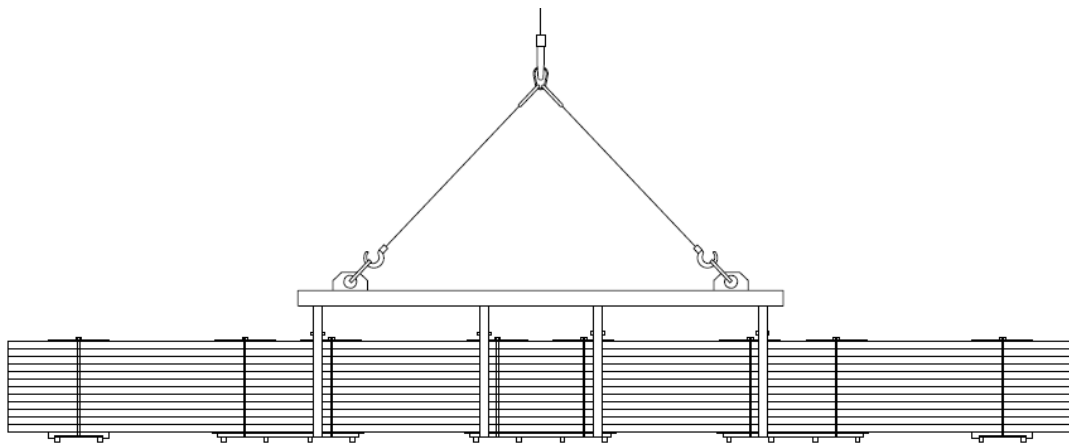


Fig. 3. Unloading of $> 8.0\text{m}$ long panels.

Weather conditions

The following weather conditions are of critical importance for assembly of sandwich panels: due to the relatively low weight-surface ratio of the panels, the wind speed should not exceed 4 degrees Beaufort (9 m/s).

Storage

Store the sandwich panels in slightly inclined position, on one side edge, to ensure free drainage of rainwater which might otherwise penetrate into the package – fig. 4. Provide panels intended for open-air-storage with adequate protection against rainwater, snow, wind and contamination. Use canvas covers to provide adequate protection – see fig. 5 (it is forbidden to use plastic film for protection purposes). The canvas covers ensure adequate ventilation and prompt evaporation of accumulated

moisture. Absolutely avoid water collection between the panels, as in case of prolonged storage without adequate ventilation, this may damage them. To avoid indentations and prints on the panels, it is forbidden to pile panel packages at the construction site.

Store the packages on hardened and even surface to avoid damage to the panels. Partially unpacked panel packages must be always protected against rainwater and strong wind.

Due to the additional load exerted on the structure, for temporary on-roof storage and during assembly, the roof panels can only be placed on the load-bearing framework. This has to be agreed each time with the chief supervisor. Panel packages must be supported on the load-bearing framework by their bottom pallets. For safety reasons, the packages may not be piled while stored on the roof structure.

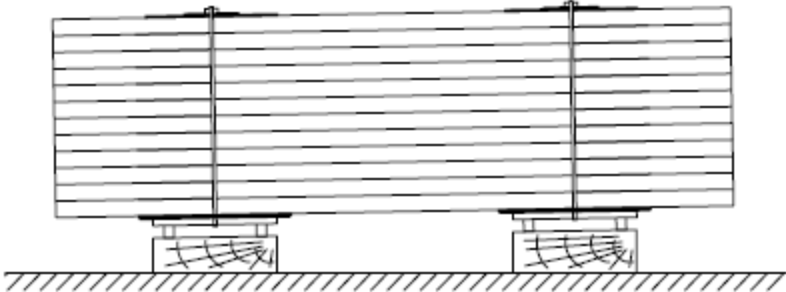


Fig. 4. Panels storage with difference of levels along side edge.

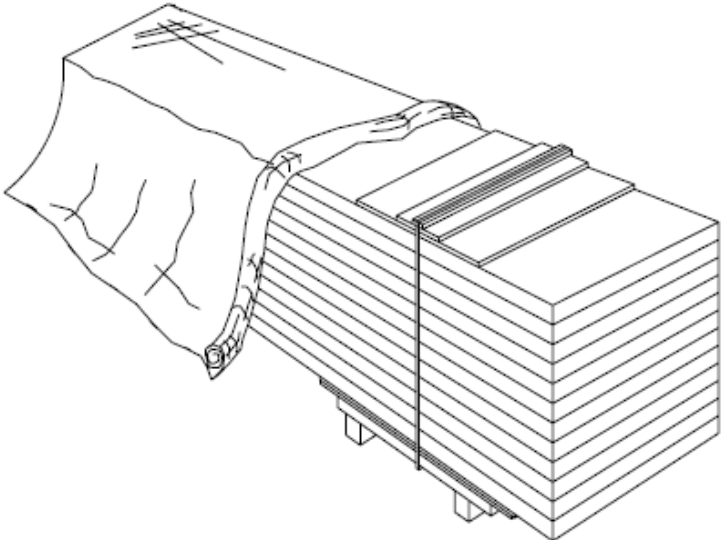


Fig. 5. Correct protection of panels with textile cover.