



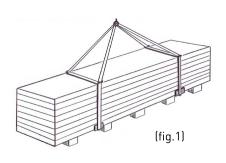


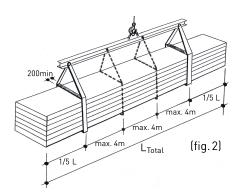
GUIDE TO SANDWICH PANEL OPERATIONS

TRANSPORT, UNLOADING AND HANDLING

The packages of panels must always be shipped covered with awning or in a closed container, on a flat surface and perfectly secured with sling devices and corner protectors to prevent any movement and friction between the panels. No more than 3 packages of panels will be stacked in height.

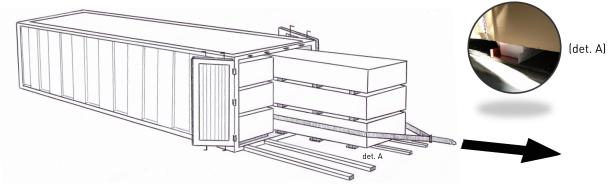
The unloading of panels must always be carried out with nylon slings with a width sufficient not to mark the panel and must be equipped with a rigid protection of a length greater than the width of the package, both at the top and at the bottom of it (fig.1). It is essential that the clutching or support points (always at least 2) cannot be moved during the handling maneuvers, which must be performed with extreme caution and care.





In packages with a length greater than 6.00 m, it will be necessary to use a rocker arm for the unloading and positioning of the material by means of lifting, made of sufficiently resistant material and which must have sufficient anchorage points, with a maximum separation of 4 m between them [fig.2].

In the case of transport of the material in a closed container such as a High Cube (HC), Hiansa Panel includes at the time of loading certain measures that facilitate its subsequent unloading, such as extending silica sand at the base of the container, equipping the lower support blocks of the packages with metallic "U" (in order that they can slide with the help of the sand through the container at the time of unloading) and providing the package with a "lost" nylon sling, surrounding the entire package to be able to stretch it with mechanical means from outside of the container.

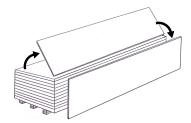


To unload the closed container, it is recommended to first place it at ground level on a flat, stable surface that is free of obstacles. Once the doors have been opened, place 2 tubes of the same height as the floor of the container, as rails, in order to slide the entire load from inside the container, stretching the nylon sling mentioned in the previous point, with mechanical means from outside the container. Once the entire load is out of the container, it can be moved by manual means, with a crane or with a forklift.

In case of handling with a forklift, it will be important to ensure that due to the length of the panel, the package does not flex excessively and may cause damage to the bottom of the package or even cause breakage or cracking of the panel. Forklifts indicated for this use will be used, with the forks being sufficiently long and wide, with round edges, and able to open wide enough to move the package correctly.

For any handling of the panel, the operators will be duly equipped with the corresponding PPE maintained in perfect condition, according to applicable standards. In addition, slings or something similar may be used, provided that they do not damage the edges of the panel. To unpack the material, tools or implements that cannot scratch, mark or affect the panels, be it entirely or partially, will be used. For their assembly, the panels will be removed one by one from each package received on site **without dragging one on top of the other** and transporting them in an upright position, to avoid excessive sag and buckling that could affect the bond between sheets and inner insulation.





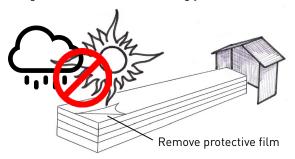




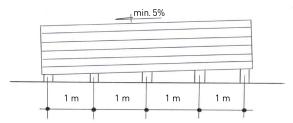


STORAGE

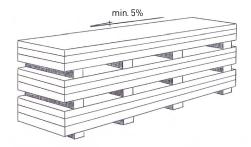
Panels should be stored in a covered, ventilated and dry place. If this is not possible, they must be protected with tarpaulins or plastics, **ensuring proper ventilation**, in order to avoid the reaction of the zinc contained in the steel and that can cause "white oxide", which does not affect the resistance of the material, but does affect its aesthetics. If the panels have protective film, it must be removed as soon as possible. After 10 days of storage, the film becomes increasingly difficult to remove and can damage the panel coating.



Packages must never be laid directly on the ground, but should be placed on supports that are wide and long enough so as not to damage the material. They must be stored on a flat and stable surface. In addition, the structure must have a small slope of at least 5% in order not to accumulate water from possible condensations between panels.



Never stack more than three panels on top of each other, avoiding as much as possible the prolonged storage of stacked packages. It is recommended that the supplied panels be installed as soon as possible, without exceeding 60 days from their manufacture, in order to maintain all its original properties as much as possible. The protective film must be removed immediately once installed.



STORAGE

Once the panel is installed, the panel surface must be thoroughly cleaned, eliminating any chip or metal shaving that may cause rust. All metallic and non-metallic objects on the panel surface must also be removed, leaving it completely free of obstacles. If necessary, the wall will be washed with neutral detergent solution + water. Do not use brushes that may damage the panel.

Any accumulation of water on the edges of the panel must be avoided. If this is totally unavoidable, additional protection must be placed on the edges cut by means of varnish or suitable paint in each case.

Each year, it is necessary to check the material installed (panels and trims), in order to locate corrosion points and make the appropriate touch-ups with paints, or identify points affected by the passage of time or by external elements.

Every two years, at the maximum, a complete inspection will be performed on the material installed, which includes washing the wall with neutral detergent solution + water. Do not use brushes that may damage the panel.

The points that have scratches or abrasions must be protected immediately with a suitable treatment touch-up or paint.

Any fastening that is detected as having a loss of tension must be tightened or otherwise replaced immediately.

In the event of any anomaly arising in the installed wall, whether due to human action or natural causes, it will be necessary to act immediately by stabilizing it or even repairing it if necessary.