

## SCOPE

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The aim of this document is to provide the User with guidance on how Pangua-Fire panels should be handled and stored in order to help preserve their properties.

## STORAGE

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- Panels should not be subjected to extreme conditions during storage, e.g. abrupt changes in moisture or temperature, direct sunlight, rain, high temperatures, etc.
- Avoid direct contact with any potentially harmful agents, e.g. water puddles, soil, moss, fungus etc.
- Avoid storing panels in circulation areas where they might be hit by vehicles.
- In order to achieve optimal storage conditions, panels should be kept at between 30% and 60% humidity and in their original packaging. This is particularly relevant if we consider that the treatment to improve material's fire characteristics affects to its hygroscopic capacity, making it capture moisture easier, which could help moss grow.
- Panels should be stored flat, levelling crates with suitable materials, if required.
- Avoid using mechanical handling systems, steel straps or other equipment harder than wood, as these may cause damage to the panels.
- Panels should be stacked in accordance with standard safety regulations.
- Panels should not be stacked more than four packs high.
- Brackets should be fitted in vertical alignment in order to achieve good weight distribution.
- In the event that storage conditions are not able to meet the above criteria, please contact our Quality Control department for advice.

## HANDLING

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Any treatment, handling or re-processing of panels may modify the inner characteristics of the plywood. The following rules for correct use should therefore be followed to avoid problems:

- Before use, the panels should be acclimatized to local environmental conditions whilst taking into account the aforementioned general conditions.
- Never expose fire rated panels to temperatures over 80°C, as this would affect to its properties. Pay special attention during re-veneering or similar processes.

## PRECAUTIONS OF USE

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- All post-delivery product processing operations that may affect the product's reaction to fire classification are the sole responsibility of the purchaser and the end user.
- Pangua fire is obtained through a fire retardant treatment by autoclave vacuum process. This can cause phenomena of deformation that do not affect its intrinsic qualities. The occurrence of such phenomena can not therefore not subject to claims by the buyer or end user.
- The panels contain crystalline flame retardant additives which, by surface migration, can create pulverulent and chalky areas without affecting their mechanical and flame retardant properties. These adjuvants increase by elsewhere the hygroscopicity of the panels.
- The panel dilation rate is  $(\alpha(^{\circ}\text{C}-1)=10^{-6})$ . A sufficient expansion joint should therefore be allowed when installing the panel.
- In case of machining the panel, its properties would not be affected.
- The surfaces where panels are installed should be clean, stable, comply with humidity indications, flatness, etc.
- Whatever the type of surface treatment used, it is important to:
  - 1) Sand the panels to minimize the presence of crystals on the surface.
  - 2) Conducting preliminary tests of surface coatings on test pieces to check the compatibility of the coating with the panel, in coordination if necessary, with the coating manufacturer.
  - 3) If the surface coating requires application by gluing, it is important:
    - To stabilize the panels in the ambient atmosphere of their future use until they have reached their moisture content balance.
    - To carry out preliminary tests of the sizing system on specimens to check the compatibility of the plan of bonding with the panel, in coordination if necessary, with the gluing system manufacturer.
- Screws and metallic pieces used with fire rated panels should be rust-proof, as the treatment given to wood may rust metal pieces.
- When machining panels, always use suitable, high-quality tools, which allow the wood to be cut cleanly, without tearing, shredding, etc.
- Do not hit panels with elements harder than wood and avoid any object impact on the panels.
- The panel is not designed to decorative purposes.