

OKOUME-SUPERIOR

REVISION JANUARY 2020

SCOPE

The purpose of this document is to provide the User with guidance on how OKOUMÉ SUPERIOR panels should be handled and stored in order to help preserve their properties.

The plywood panels, due to the extent of their performance, can meet the highest and most varied requirements, and adapt perfectly for a large number of uses. The plywood is primarily made of wood, and if panels can claim environmental qualities and recognized technical performance its biological origin and its "living" aspect" should never be forgotten. Before any use, it should be kept in mind the fact that wood - and therefore plywood panels – continues during its life cycle to interact with its environment. This is particularly true when we think of the hygrothermal properties of material, properties which often, moreover, motivate the choice of wood rather than that of an inert material.

It is therefore first of all necessary to take into account dimensional variations of the plywood caused by climate changes or exposure to water (or variations hygro-thermal conditions of the environment).

More generally, it is necessary to check and correct, if necessary, the exposures or risks exposure of the material to water during construction and anticipate these risks during the life of the material.

The following "checklist" allows you to reduce considerably the risk of surprises:

- Choose the right plywood according to the use (bonding class);
- Storage and installation protected from water;
- Site coordination preventing certain bodies of states, in particular plasterers and masons do not intervene;
- after the implementation of the panels;
- Elimination of resulting surface condensation absence or insufficiency of resistance thermal of the external walls;
- Ventilation of the walls allowing to keep inside of these, the closest possible climate the state of equilibrium in the ambient environment;
- Presence of an expansion joint between each panel with an assembly that does not hinder the weak travel;
- Progressive heating of the ambient;
- Maintaining a constant air humidity, especially in rooms with air conditioning.



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STORAGE



It is recommended to:

- Panels should not be subject 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;
- 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 high for more than four packages;
- 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



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.
- Pay special attention during re-veneering or similar processes as this would affect its properties.
- Never expose OKOUMÉ SUPERIOR panels to temperatures over 80°C, as this would affect its properties. Pay special attention during re-veneering or similar processes.



PRECAUTIONS OF USE



- All post-delivery product processing operations that may affect the product's quality are the sole responsibility of the purchaser and the end user.
- The surfaces where panels are installed should be clean, stable, comply with humidity indications, flatness, etc.
- Dimensional variations: The humidity variations in the air cause variations in humidity of the panels which are reflected by dimensional variations in length, width and thickness. These dimensional variations - specific to the material wood - are reversible; they should not be confused with consecutive irreversible degradations long direct exposure to water (condensation, rain, etc.). Thus, prior stabilization in the atmosphere which will be that of the subsequent use of panels is recommended. Due to the presence of the glue which slows down or screens moisture penetration and crossing wood grain which counteracts tangential shrinkage, variations dimensional plywood panels in the plane (length and width) are much less than that of solid wood. The dimensional variations of the panels are expressed by the % change in panel dimensions between a dry state (30% humidity) and a humid state (85% air humidity) at 25° C. They are determined according to the method defined by standard EN 318 "Wood-based panels – Determination dimensional variations under the influence variations in relative humidity". 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.
- The screws and metal parts used with OKOUMÉ SUPERIOR must be anti-rust, since the rust could impoverish the quality of the panel.
- 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 type of impact on the panels.

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MAINTENANCE



- Depending on the installation system of the panels, their properties can be retained longer. For example, the lifetime of the panel will be longer if the edges are less exposed to rain and solar radiation.
- Once the panels are installed in their location, apply the surface treatment as soon as possible. Do not leave panels unprotected more than a week after installation to avoid dirt stains, sun marks, etc.
- Always take into account the weather conditions.
- Always use good quality finishing products and follow the manufacturer's instructions.
- The panel's surface finish should be kept well maintained to help preserve its properties and protect it from the harmful effects of sunlight, weather conditions, etc.
- Before any maintenance of a panel is carried out, any earlier treatment should be assessed and a decision made as to whether this needs to be removed prior to the application of any new treatment. In this case, non-aggressive products should always be used and a new coat of protection of paint can then be applied. This process should be periodically carried out, as per manufacturer's instructions.
- Poor maintenance, or indeed the application of too many coats of paint, may lead to a reduction in the protection provided by the panel.
- As previously recommended, panel edges should be sealed. Checks should then be carried out at intervals and if necessary, repairs made to ensure their continued good condition.

