

# SHELTERS, OUTDOOR FURNITURE AND PLAYGROUNDS

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## DEFINITION AND ROLE

There are two types of outdoor equipment that are intended for recreation outside:

- Fixed equipment such as recreational, picnic and play areas, which are generally made of hardwood for reasons linked to stability and durability over time. In principle, they cannot be removed, are fixed to the ground and are often located in areas with medium to high climatic condition exposure levels.
- Mobile equipment such as garden furniture, which must be lighter in design in order to remain transportable and possibly foldable.

All of these structures are designed to accommodate people or to be in direct contact with them.

## STRESSES

The service situations (of these structures) expose them to bad weather, and in particular to contact with the ground and water. Moreover, this type of equipment is solicited by occasional loads and is therefore subject to risks of breakage in the event of heavy stress.

## REQUIRED PROPERTIES

Contact with people requires the use of timber whose behaviour and surface appearance must remain constant over time. The timber must have a low aptitude to crack\* or break. The surface finish must not degrade and must not present any risk to users. Likewise, the material must demonstrate appropriate resistance against shocks and malicious acts. Resistance against biological degradation by rot must be also good.

## PRINCIPLES OF IMPLEMENTATION

The installation of these structures must be done with care in order to avoid the risk of injury due to the presence of pointed parts or sharp edges that have not been chamfered. The design of the assemblies must allow for the perfect flow of rainwater. It is advised that assemblies using bolts or screws be used rather than assemblies that rely on timber cuts (tenons / mortises). The horizontal sections should be designed with louvring in order to allow rainwater to flow off (table top, bench seat and chair). The quality of the finish and its maintenance play an important role in maintaining the aesthetic appearance of the structures. A film-forming finish quickly becomes a source of water trapping in the event of poor maintenance.

## USAGE CLASS

These structures predominantly fall under usage class 4. Only sheltered elements can use timber having lower durability.



Photo : Wing chair © M. Vernay



Photo : Play area © P. Martin, ATIBT