PLYWOOD, INNER LAYERS

DEFINITION AND ROLE
Plywood is a material that consists of timber sheets arranged in several layers. These sheets, referred to as "layers", are glued under pressure on top of one another. The layers are obtained using rotary cutting or slicing processes. In addition to the plywood’s visible faces, referred to as the outer layers, the panel consists of inner layers. Each panel consists of a central layer, or median layer, called the core. The other layers are arranged symmetrically on both sides. The non-visible interior layers allow for the use of much less noble species than are used on the faces. Timber that is white, lightweight or has a few defects is generally used for this function.

STRESSES
The inner layers are mainly used for the mechanical performance of plywood. The loads they can support are either perpendicular to the panel, or in the plane of the panel (bracing). They are used in many indoor and outdoor areas and can be subject to highly variable levels of ambient moisture.

REQUIRED PROPERTIES
As is the case with plywood’s inside and outside faces, the quality of the bonding, the durability of the timber species making up the layers and the composition of the panels are the main criteria likely to modify the panels' properties. As the inner layers are not visible, their appearance is of minor importance as long as the defects do not affect the mechanical properties.

PRINCIPLES OF IMPLEMENTATION
Panels intended for indoor use do not present any particular constraints during implementation. Plywood panels intended for outdoor use or used in humid environments must meet the requirements of standard EN 636.

USAGE CLASS
Subject to impregnability and a suitable insecticidal fungicide treatment, species that are intended for the interior layers of plywood may be used in different usage classes.

Photo: Thick veneering for plywood cores © M. Vernay