

SCREEN WALLS AND SOLAR SHADING

DEFINITION AND ROLE

Screen walls are vertical constructive structures that enable a space to be closed off, separating it or dividing it. Screen walls are perforated assemblies that allow light and air to circulate.

Solar shading is a perforated horizontal or vertical system that is designed to filter light on a façade or on a floor surface.

STRESSES

In the case of solar shading, the timber is directly subject to bad weather. Depending on the installation system, solar shading is subject to creep deformation due to its own weight and to the alternating effects of moisture and thermal shocks. Screen walls are rigid joinery assemblies that are designed to withstand bad weather while remaining stable.

REQUIRED PROPERTIES

For these types of products, the primarily expected timber qualities are stability and durability. Timber species characterised by medium density and a low risk of cracking are preferred.

PRINCIPLES OF IMPLEMENTATION

Implementation must allow for shrinkage and swelling movements in the widest elements, without hindering the structures' aesthetics or solidity. The assemblies must minimise water infiltration. The mounting distance between support points must be correctly defined in order to limit the risk of creep deformation.

USAGE CLASS

Usage class 3 is required in the event of perfect drainage or class 4 in the event of prolonged exposure to moisture.



Photo: Separating screen wall© kai4107



Photo: Solar shading façade made with Iroko© M. Vernay