

## Entrance door in wood-aluminium

## technical specifications

### Features

Wooden front doors with outer aluminium cladding for external application only. The materials we use are stocked in a storehouse that is naturally aired, and it is thermo-hygrometrically balanced with the environment. It's humidity level, when we start working it, varies according to the type of wood and it can range from 10% to 16%.

### External Aluminium Cladding

The aluminium profiles are joint to the wood at a distance of 5 mm through turning clips in order to let the two materials distend naturally as well as to favour a proper internal ventilation. The reason why we do this is to avoid the formation of condensation, which is harmful to wood. Aluminium is varnished in full obedience of the European quality mark "Qualicoat" as well as of the German quality mark "Ral".

Nuvola: aluminum coating is shaped featuring an accentuated curvature of leaf profile, the coating frame and leaf are complanar.

Nuvola Tecnica: aluminum coating is shaped featuring and linear leaf profile.

The corners of the aluminum coating are joined for both.

### Frame

Fixed wooden frame with a 60x55 mm section (with external aluminium cladding frame section 80x74 mm). The profiles are made so that the ends of stile and transom perfectly match, and they are double-tenoned together at right angle. Gluing made with adhesive tested in accordance with regulation EN 14257 (ex WATT 91). Frame on three sides and grey pultruded lowered sill with holes for water drainage. The anti-barrier lowered sill in no more than 25 mm-high, in accordance with the current regulations.

### Leaf

Fixed or openable wooden sashes with a 120x55 mm section (113x55 mm for nuvola tecnica), with external aluminium cladding section Nuvola 120x90 mm and Nuvola Tecnica 113x74 mm. The profiles are made so that the stile and transom ends perfectly match, and they are double-tenoned together at right angle through anti-twist tenon and dead hole. Gluing made with adhesive tested in accordance with regulation EN 14257 (ex WATT 91). The gap between wood and aluminium to avoid the formation of condensation and guarantees airing of the glass, in accordance with the current regulations. Profiling and squaring are made for a 12 mm hardware system, which means that the distance between the two leaves is 12 mm. Standard French window has two cross pieces lower.

### Panels

The panels are made of veneered MDF waterproof essence request. For best thermal transmittance values can be entered insulated panels. The standard aluminum panels are smooth, on request it is possible to have ashalar. All the panels can be replaced with the glasses. The subdivision of panels in all models can be varied and customized by adding one or two vertical uprights and/or horizontal crossbars.

## Hardware

Silver hardware undergoes a galvanic zinc-coating process which is completely exempt from hexavalent chromium. It is made with steel and highly corrosion-resistant alloys, in conformity with the class 5 resistance requirements, in accordance with regulation DIN EN 1670. In case of application in spaces where a high heat-resistance is required, please fix the suitable hardware system with the windows maker. Locks are certified with the "Ral" quality mark, (in accordance with regulation DIN EN 1326-8) and they have been tested upon 10.000 openings and shuttings.

**Current supply:** self-locking lock with 3 latches that come out simultaneously, thanks to the latches the door is always hermetically closed, even without turning the key, on request this lock can become automatic electric "anuba" hinge adjustable, maximum weight capacity 90 Kg per leaf; silver anodized aluminium handle internal and external fixed knob.

## Bolt

Fitted as standard on the two leaves, are one lower and one upper.

The front door with frame measuring L 900x2200 H mm, one sash, with insulated panels features these properties:

<b>Wind-resistance</b>	A4 class	UNI EN 12210
<b>Water-tightness</b>	8A class	UNI EN 12208
<b>Air-permeability</b>	4 class	UNI EN 12207
<b>Thermal transmittance value</b>	Uw=1,4 (panel Up=1,14)	UNI EN 10077-1 e 2