

SANDWICH PANELS

Sandwich panels are high performance products with engineered characteristics in terms of insulation and acoustic properties.

They do however also contain timber elements. These timber elements remain hygroscopic and will respond to climatic changes. The panel should be treated in the same way as you would any timber product, and any finishing system should be applied in accordance with the manufacturers instructions.

Moisture and heat are thus the main enemies of sandwich panels and attention to design, construction and maintenance is key.

Key Points

The door/ door set must be designed to accommodate moisture related movement that occurs in the various timber components in service.

Maintain the moisture content of the door / sandwich panel during storage with appropriate protection. Must be stored horizontal and flat, preferably on a slave board. Do not store vertically or at any degree of angle. Do not store doors in buildings where wet trades are working or which are in the process of drying out.

All products should be acclimatised before installation.

UV radiation in sunlight will result in colour changes.

Problems encountered with external doors can arise through inadequate preparation and finishing.

Adhesives used should comply to BS EN 204 classification of wood glues – D4 suitable for Exterior areas exposed to weather.

Finishing

We recommend all panels are fully coated to increase protection and performance in service.

It is accepted good practice to have the finish system on the inside of an external door more vapour resistant than that on the outside of the door. The purpose of this is to discourage moisture ingress from the inside to the outside from accumulating behind an impermeable outer layer which could lead to build up of moisture within the door which in turn can lead to excessive movement of the timber components.

The end grain of timber absorbs moisture more readily than side grain. Exposure of end grain should be avoided and any end grain should be fully sealed before the application of any finish. This consideration applies also to letterbox openings, glazed apertures, locks etc.

Avoid dark coloured coatings for the outside surface of an external door as dark colours absorb heat more than light colours, this is particularly the case on south facing aspects even if partially protected by porches or canopies, as this can lead to distortion (due to the drying effect of the higher temperature).

Apply coating to all sides and ends prior to installation. Apply any additional coating as per manufacturer's recommendation. Once installed coating will need to be re-applied as per manufacturer's recommendation.

Storage

Poor site storage can lead to damage / distortion jeopardising the future performance of the panel / door. Storage: dry flat undercover and in conditions of temperature and humidity similar to those in its intended locations.

Further information on best practice for Timber External Doors can be found on TRADA Wood Information Sheet WIS 1-147 Timber External Doors.