

## Moisture content - Care of Timber Stairs on Site

Timber stairs produced by members of the British Woodworking Federation Stair Scheme are highly accurate products, designed and manufactured using the best available techniques to produce performance rated products.

Often timber stairs are delivered in component form to allow for access, construction and installation on site. The way they are handled and stored on site can affect their long-term performance. Good practice on site avoids damage, maintains quality and saves money.

The management of moisture content of the timber stair components and the environment that they are stored and installed in needs to be considered to avoid rapid changes in moisture content that may affect the accuracy of construction and installation. Timber stairs should only be stored and installed in conditions similar to the average moisture content and relative humidity that the timber stair will experience in service.

### Indicative moisture content values that should be considered for timber stairs

Location	Moisture content range	Approximate relative humidity
Internal Use – heated environment	7%-11%	50%
Internal use – unheated environment	10%-14%	65%

For long term performance of the timber stair and finish, it is important that moisture content is maintained within the ranges stated in the table above during manufacture, storage on site and during the construction process.

Buildings under construction may have high moisture content and widely fluctuating humidity because of products and processes (such as plastering) that introduce high levels of moisture to the building. In addition, the building will be fully exposed to the environmental elements until it is made watertight by the installation of roofs, doors and windows. Once a building has been made watertight, the entire structure and all building components within it will usually go through a drying out process. This can take a considerable amount of time to bring humidity and moisture content to levels that it will experience throughout its lifetime.

Wherever possible the sequence of deliveries should be coordinated in order that stairs delivered in component form are kept on site unfixed for the minimum amount of time to prevent dimensional changes in components that may impact on installation.

The following checklist provide guidance in managing product delivered to site. Further information is available from: [www.bwfstairscheme.org.uk](http://www.bwfstairscheme.org.uk)

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### DELIVERY AND STORAGE

Timber stairs should be checked at the time of delivery to ensure that they are in accordance with the order schedule, the delivery is complete and that each component, including any protective packaging, is not damaged.

Wherever possible the sequence of deliveries should be co-ordinated to site requirements in order that stair components are not kept on site unfixated for any longer than necessary. The storage place should be prepared in advance and should have a relative humidity of 50%.

### MANUAL HANDLING

Stair components can be heavy with delicate joints and consideration for safe manual handling should be made to ensure that suitable trained personnel handle product on site. When components are protected by protective packaging, this should be kept in place as long as possible.

### STORAGE ENVIRONMENT

If the timber stair needs to be stored on site prior to installation, it should be stored inside the building that they are to be installed in. Delicate components should be stored horizontally level on bearers to minimise distortion and not stacked on top of each other. There must be space for air circulation around and between the components.

### PROTECT STAIRS DURING SITE OPERATIONS

Ensure that the moisture content of the timber is kept close to the level at which it was when the stair was manufactured.

Whenever possible store stair components in the sequence they will be needed with codes or identifying marks visible to avoid double handling.

### TREAT YOUR TIMBER STAIRS LIKE A PIECE OF FURNITURE

Prefinished stairs should retain their protective packaging until the latest possible time. Care should be taken when removing packaging to avoid damaging the finish.

### INSTALLATION

Installation should only be undertaken by trained and competent personal. Further guidance is available from the BWF Stair Scheme Installation Guide for Private stars: <http://www.bwfstairscheme.org.uk/stair-installation/>

### ENSURE SURFACES AND EDGES ARE IN GOOD CONDITION BEFORE APPLYING FINISHING COATS

Timber stairs are available as joinery items supplied in different finishes. Some stairs are supplied with no finish applied or have a coat of primer, as the final finishing coats are applied on site, and some stairs are supplied fully factory finished. Guidance should be sought from the stair manufacturer regarding specific compatible materials, products and processes suitable for site finishing.

If the primer or base coat stain has deteriorated it should be recoated before further finishing coats are applied.

Its all in the badge:

The BWF Stair Scheme is the only accreditation scheme of its kind in the UK.



Further guidance is available from: [www.bwfstairscheme.org.uk](http://www.bwfstairscheme.org.uk)