

TECHNICAL ADVISORY SHEET - JOINERY COATINGS

GENERAL ADVICE

We would strongly recommend that Joinery systems are manufactured and finished to a minimum of BS 644. Additional good practices can be found in BWF Guidance notes. Specific mention of some major aspects from these standards and practices are listed below to ensure the finished joinery can perform to its maximum potential.

The pores and grain on the face of the timber in exposed areas of hardwood joinery (cills/rails and jambs/stiles) must be fully sealed to ensure water ingress cannot occur on exposure, as this will result in staining and premature failure of the coating. Successful sealing of the grain can be easily determined visually.

Oak is a particularly difficult species of timber to finish and achieve a durable finish due to its porosity, hardness and liability to check/crack at wild grain over time. Provided that good joinery practices are undertaken the performance of the coating can be enhanced.

Sharp edges must be replaced by rounded edges with an internal radius of 3mm or greater.

All horizontal surfaces must have a minimum 7 degree slope (ideally 15 degree) to avoid standing water.

All surfaces of the joinery including beading must be fully finished.

Exposed endgrain must be smooth cut and sanded with 180 grit abrasive before finishing to ensure it can be fully sealed with the finishing system, and ideally the application of a thin smear of sealant heavily pressed into the endgrain after the first basecoat will help ensure these exposed surfaces are correctly sealed.

Water ingress at joints that fail in service is a common problem, this can be avoided by ensuring that the joints are fully glued (ideally with a single pack foaming PU adhesive), and sealed with a joint sealant on the faces of any rebate above the joint.

Planed oak timber faces are extremely smooth and should be sanded with 180 grit abrasive to provide a good mechanical key for the basecoats to improve adhesion of the coating. Fibres raised by the sanding of planed timber will be removed in one of the denibbing stages, resulting in a final smooth finish.

Ventilated bottom beads on glazed sections are preferred.

Glazing putties/mastics/tapes must be non-setting type (butyl rubber/epdm) and care must be taken to ensure that there are no air gaps between the glass/glazing media and the beading.

GENERAL ADVICE CONTINUED

The degree of 'exposure' of the joinery items will also have a profound effect on the durability of the finish system. The following exposure chart shows to what degree this can occur and can determine the life expectancy of any coating system. Where possible in high exposure situations additional protection could be provided to increase the life expectancy of the finished timber.

CONSTRUCTION	CLIMATE		
	Moderate, this would include non-coastal areas at low altitude	Hard, this would include areas within ½ mile of coastline	Extreme, any areas of high altitude
Sheltered, e.g. beneath porch or large roof overhang	Low exposure	Average Exposure	Average Exposure
Partly sheltered, e.g. window built back into reveal	Average Exposure	Average Exposure	HighExposure
Not sheltered, e.g. face of building	Average Exposure	HighExposure	Extreme Exposure

SPECIAL INSTRUCTIONS

Drying: At low temperatures waterbased coatings tend to dry with a loose/open structure that can allow high moisture levels to develop in the film resulting in water spotting defects and poor adhesion.

It is therefore important in winter with thick films of water based Joinery products to ensure that they cure at a reasonably high temperature to obtain a finish that is adequately formed to resist direct water contact.

We recommend ideally leaving finished joinery at 18 °C or higher with a small amount of air flow around them for at least 3 days or longer to ensure this occurs before packaging or exposure.

Shrink wrapping or bagging of joinery items before they have lost all their volatiles can halt the drying/curing process and if such items are stored on site in very cold conditions can result in impaired adhesion.

GENERAL ADVICE CONTINUED

AFTERCARE OF JOINERY, INSPECTION, MAINTENANCE, REPAIR AND RESTORATION.

Inspection: an annual visual inspection of the coated surface for defects that may impair the durability of the finish or underlying timber must be performed.

Defects that can result in a break in the continuity and durability of the finish:

1. Natural movement in the timber (cracks or shakes).
2. Impact damage or mechanical wear.
3. Ingress of water through joint or seal failure.

Repair: The damaged area must be returned to sound bare wood. Shakes, cracks and gaps in timber to timber areas filled with joint sealant and the full finish system is to be reapplied by brush to the area of the repair. Seal failure requires specialist repair.

Restoration: After a period of time depending on exposure the surface will need to be restored to the original appearance.

Method: Clean surface with water, allow to dry, lightly sand surface with 320 grit abrasive paper, then apply one coat of the same topcoat coating used originally to bring the surface back to the original level.