

## Design and installation

### Factory finished joinery

Modern joinery coatings provide a water repellent, flexible and durable decorative finish which, on well designed and properly installed joinery, will give many years of service.

To ensure that the coating can perform as designed, it is important to specify the appropriate design and installation requirements.

### Timber Quality

The timber grade must be appropriate for the natural durability and use classification of the intended exposure conditions. See: BS EN 350; BS EN 335

### Preservation Treatment

If the natural durability of the timber does not meet the class requirements of BS EN 335-2 it must be preservative treated in conformance with BS EN 599-1.

If using double vacuum preservative impregnation, particularly with solvent based material, the manufacturer's recommended drying times must be followed before coating. Typically, under good ventilation conditions, these can vary from 2 to 14 days.

If a water based surface applied preservative, such as Aqua Primer 2907 combi, is used, joinery must be factory coated to a minimum dry film thickness of 80µ before site exposure in compliance with BS EN 599-1.

### Timber Design

Cills and non vertical surfaces must show efficient water shedding characteristics, with a slope angle of not less than 9°.

Surface tension causes wet paint to flow away from sharp edges leaving them relatively unprotected. A minimum radius 3mm is required to avoid thinning of the coating system in accordance with British Standard 644.

Interior edges should be rounded to at least 1.5mm radius.

The design must preclude obvious water traps, and any gaps or recesses in the joinery should be sufficiently wide to prevent capillary draw of water; typically Teknos recommend a 3mm gap.

Fixing pins, particularly on horizontal glazing beads, must not allow the ingress of water. Secret nailing is a good solution, otherwise, if pins are punched below the surface, filling must be carried out to avoid producing a water collecting hollow. Secondary filling may be necessary to account for shrinkage.

As a minimum, the construction guidelines set out in BS 644 should be followed at all times.

### Coating Application

Moisture content of the timber at the time of coating should be between 12% and 16%.

End grain and construction joints must be sealed. The natural movement of timber means that components butted together, however fixed, will move over a period of time. If a gap opens, the end grain is exposed, and unprotected end grain can absorb moisture at a rate many times faster than other surfaces of a timber component. End grain should be sealed with Teknoseal 4000, or equivalent. Construction joints and, where appropriate, mitred cill joints can be 'V' cut and neatly filled with Teknoseal 4001 joint sealer. This allows for a small amount of movement before the joint is exposed.

After the application of the coating system, the thickness of the dry film on exposed surfaces should be a minimum of 120µm. For "built in" edges of frames, a minimum dry film of 50µm is acceptable.

### Glazing System

The glazing system should be drained and vented in accordance with BS 8000: Part 7

Glazing systems should be sealed to prevent penetration of moisture into the rebates of the supporting frame. Accumulated water will eventually penetrate any joinery finish over a period of time. Provision of drainage holes/channels will reduce the potential damage if the glazing system leaks.

*The quality of site installation and fitting work is crucial to the long-term durability of the coating system and the ultimate service life of the joinery. Teknos provide support and training to ensure that our coatings perform to the maximum, and further explanation of the features described in this sheet can be obtained from our Technical Sales Team.*

### Teknos UK and Ireland

Teknos is one of Europe's leading suppliers of industrial wood coatings. We provide technical support and delivery services throughout the UK and Ireland from 3 service centres, located at Swerford, near Banbury, Livingston and Belfast.

For further information, please contact your local service centre.

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