

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 that the following design and installation practices are specified:

#### Timber Quality

Timber grade used in manufacture must be selected to take into account its natural durability and use classification for the proposed exposure conditions.

See: BS EN 350; BS EN 335

#### Preservation Treatment

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

If the timber is preservative treated using double vacuum 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 Teknos Aqua 1410, is used as part of the coating finishing process, 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

Eills 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 of not less than 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. Any gaps or recesses in the joinery should be sufficiently wide to prevent capillary draw of water into holding areas, typically Teknos recommend a 3mm gap.

Fixing pins, particularly on horizontal glazing beads, must not allow the ingress of water. If pins are punched below the surface, filling must be carried out to ensure that a water collecting hollow is not produced. 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 is between 12% and 16%.

End grain and construction joints must be sealed. The natural movement of timber usually 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 will be a minimum of 120µm. For "Built in" edges of frames, a minimum dry film of 50µm is acceptable.

#### Glazing System

The glazing system is to 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.

#### Other Areas

Rainwater goods must be in place and working efficiently.

The quality of site installation and fitting work is crucial in determining 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.