

# Common timber types - exterior joinery

## Good joinery practice

This is a brief overview of the timber species commonly used in the UK and Irish joinery industries.

Further information is available online:

[www.teknos.co.uk](http://www.teknos.co.uk) | [www.trada.org.uk](http://www.trada.org.uk)

### Softwoods

#### Western Red Cedar



Western Red Cedar is a durable softwood from North America with excellent natural weathering properties. Left untreated the surface will go to a silvery grey colour.

The natural extractives in Western Red Cedar can reduce adhesion, so it must be degreased prior to coating with a sharp solvent such as **TEKNOSOLV 7012**. Any cloths used to apply **TEKNOSOLV 7012** must be changed regularly to ensure all extractives are removed rather than dispersed across the surface.

#### European Redwood



European Redwood is the most common timber used in window and door production, but due to its durability class, it must be preservative treated to hazard class 3, BS EN 335-1.

Preservative treatment can be by double vacuum impregnation, using solvent or waterbased preservatives, or topical treatment.

With vacuum impregnation care must be taken to ensure all residual solvent has evaporated before coating since the preservative treatment can destabilise resinous areas within the timber such as knots. The use of surface applied preservative systems such as **TEKNOL AQUA 1410** or **AQUAPRIMER 2907** combi primer, in conjunction with factory applied coatings, reduces these problems and is becoming increasingly common.

European Redwood is suitable for both translucent and opaque coating systems, although with opaque finishes knotting solution should be used over knots and other resinous areas. Our preferred method involves filling and sealing the knots with **TEKNOFILL 5001** fine surface filler, treating the knot area with Teknos knotting solution and over-coating with a specially formulated isolating primer, **KNOT INHIBITING PRIMER 5200**.

Many manufacturers use engineered or laminated timber sections to minimise defects within the substrate. Finger jointed timber is common and clear face laminates are also available. Low moisture content can be a problem with engineered timber and must be taken into consideration during manufacture and when joinery is installed in areas of high moisture. Low moisture content in the factory can lead to excessive grain raising and to snagging problems on site when the timber expands as it recovers to its natural moisture level.

# Factory method statement - opaque finishes

## Application guidelines

### Softwoods

#### Iroko



Iroko is a durable African hardwood with excellent weathering properties. Untreated, the surface turns silvery grey colour. Due to its durability, Iroko is often used for cill components in door and window frames. Iroko contains extractives, which can prevent good adhesion of surface coatings, and surfaces should be degreased with a sharp solvent such as TEKNOSOLV 7012 prior to coating. Cloths used to apply solvent should be replaced regularly to avoid spreading resin across the surface.

#### Idigbo



Idigbo is a moderately durable, high strength, African hardwood used in the manufacturing of windows, doors and conservatories.

Although relatively easy to coat, two coats of ANTISTAIN AQUA 2901 must be used to help prevent stain migration through an opaque topcoat.

When applying basecoats or primers in dip tanks, the acidity of the timber extractives will drop the pH of the product in the tank. It is therefore important to monitor the pH regularly and adjust as required.

### Sapele and Utile



moderate durability, these species are used for doors, windows and conservatories. Sapele has a tendency to 'reverse' grain which can cause problems with warping when used in door manufacturing. Both Sapele and Utile can be coated with a translucent finish without problems, although a base coat stain such as AQUAPRIMER 2900 must be used to protect against surface discoloration due to UV exposure. Tannin staining has become increasingly common on these species and we recommend two coats of ANTISTAIN AQUA 2901 are used to help prevent tannin staining through an opaque topcoat.

### Oak



Oak is a durable Northern Hemisphere timber widely used for timber frames, garden furniture and, less commonly, windows, doors, and conservatories. The species typically used are European Oak and American White Oak.

Oak contains extractives that inhibit coating adhesion and should be degreased with a sharp solvent such as TEKNOSOLV 7012 prior to coating.

Although naturally durable, oak is sensitive to moisture and UV discolouration and the surface tends to split on exterior exposure. Uncoated, it will blacken and eventually turn to a dark grey colour. We do not recommend colourless systems on exterior oak joinery and all translucent shades generally require more frequent maintenance to keep their decorative appearance. For further information on coating oak please consult Teknos.

# Factory method statement - opaque finishes

## Application guidelines

### Softwoods

#### Accoya



Accoya is a chemically modified softwood with excellent stability in damp climates, Accoya is one of a number of chemically and heat modified timbers now being offered in the market. The treatment can affect the timbers resistance to surface mould growth and application of a surface applied preservative is often recommended. Accoya readily accepts both translucent and opaque coating systems where its inherent stability can extend coating life. Exposed end grain should be sealed with two coats of TEKNOSEAL 4000 to minimise moisture ingress.

### Grandis



Sapele and Utile are the most common hardwoods used in external joinery. With good strength characteristics and moderate durability, these species are used for doors, windows and conservatories. Sapele has a tendency to 'reverse' grain which can cause problems with warping when used in door manufacturing. Both Sapele and Utile can be coated with a translucent finish without problems, although a base coat stain such as AQUAPRIMER 2900 just be used to protect against surface discoloration due to UV exposure. Tannin staining has become increasingly common on these species and we recommend two coats of ANTISTAIN AQUA 2901 are used to help prevent tannin staining through an opaque topcoat.