

Common timber types

Exterior joinery

This is a brief overview of the timber species commonly used in the UK, Scottish and Irish joinery industries. Further information is available from the Teknos website (www.teknos.com) and from Trada (www.trada.org.uk)

Softwoods

European Redwood

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 water borne 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 Aqua Primer 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. Teknos' 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, Anti Stain Aqua 2901.

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.

Western Red Cedar

Durable softwood from North America with excellent natural weathering properties. Left untreated the surface will go to a silvery grey colour.

Although suitable for finishing with a wide range of translucent finishes, an isolating primer must be used for opaque finishes, as natural water soluble tannins within the substrate will stain through the topcoat.

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.

Accoya

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. Readily accepts both translucent and opaque coating systems where its inherent stability can extend coating life, though exposed end grain should be sealed with two coats of Teknoseal 4000 to minimise moisture ingress.

European redwood



Western Red Cedar



Accoya



Hardwoods

Iroko

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

A moderately durable, high strength, African Hardwood used in the manufacture of windows, doors and conservatories.

Although relatively easy to coat, two coats of Anti Stain Aqua 2901 primer 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, so the Ph level must be monitored regularly and adjusted as required.

Sapele and Utile

The most common hardwoods used in external joinery. Good strength characteristics and moderately durable, 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 manufacture.

Both Sapele and Utile can be coated with a translucent finish without problem although a base coat stain such as Aqua Primer 2900 must be used to protect against surface discoloration due to UV exposure.

Tannin staining has become increasingly common on these species and Teknos recommend 2 coats of Anti Stain Aqua 2901 stain inhibiting primer should be used to help prevent tannin staining through an opaque topcoat.

Oak

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, which 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. Teknos do not recommend colourless systems on exterior oak joinery and all translucent shades generally require more frequent maintenance to maintain their decorative appearance. For further information on coating Oak please consult Teknos.



Iroko



Idigbo



Sapele



Oak

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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