

WOOD FINISHES

Wood has a **finish** applied for the following reasons:

- To stop the wood from absorbing moisture, so that it is less likely to become stained and also less likely to warp.
- To protect against rot and insect attack.
- To improve the appearance of the wood's surface.

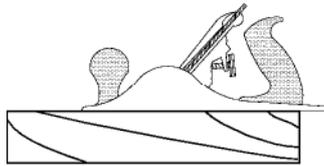
Preparation

The wood must be made clean and smooth before the finish is applied.

Planing

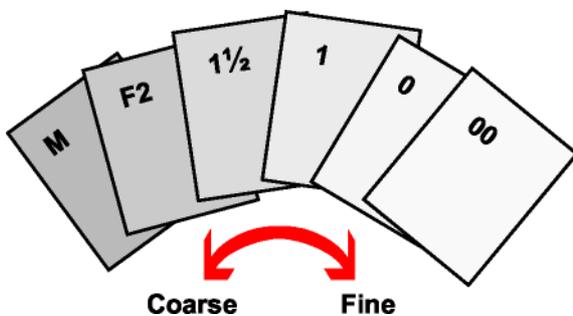
A smoothing plane with the blade set to cut tissue thin shavings will give the smoothest finish.

Note: Do not use glass paper after planing because this will roughen the surface again.

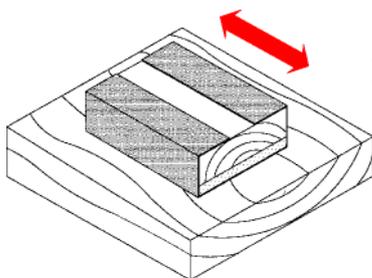


Glass-papering (sanding)

Glass paper comes in various grades of coarseness:



A coarse paper should be used first, then a medium paper and finally a fine paper.



Always sand in the direction of the grain

The glass paper should be wrapped around a sanding block. A proper block is made of cork or has a cork layer stuck to the bottom, cork is a soft springy wood and can help stop the glass paper wearing away too quickly. However, a piece of waste wood can be used instead.

Note: Always sand backwards and forwards in the direction of the grain. Any sideways or circular movement will put deep scratches in the wood that are difficult to remove.

If you are using an electric, hand held sander, move the whole machine only in the direction of the grain.

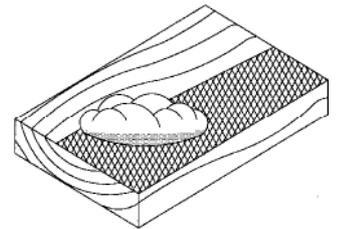
Preservative

Wood used outside or in damp conditions is likely to rot unless preservative is applied. Wood can be purchased that has had preservative forced into it under pressure (Tanalising). The preservative will last the lifetime of the wood. If untreated wood is used, it can have preservative painted or sprayed onto it, so that it soaks in to the surface. The preservative can be oil based (Creosote) or spirit based. This sort of preservative needs to be replaced every few years because rain gradually washes it out of the wood.

Stain

Stain (colouring) is used to change the colour of light woods to make them more interesting or to blend in with darker woods. It does not hide the grain. Stain is normally applied by rubbing it onto the surface with a soft clean cloth. Stain will not protect the wood so needs a finish on top. It is possible to buy a 'combined stain with varnish', this can give a very tough water resistant finish, for use inside and outside.

Apply the stain in small circular movements to even out the colour.



Varnish

Plastic based clear varnishes (polyurethane and acrylic) are sold in:

Matt finish - non shiny

Satin finish - slightly shiny

Gloss finish - very shiny

A clear varnish allows the pattern of wood grain to show through and will normally darken the wood, giving it a deep, interesting colour. It is also water and heat resistant.

The varnish can be applied with a brush (brush in line with the grain for the best finish). At least two coats are required.

- Apply the first coat thinly and let it set fully. This coat soaks into the pores of the wood and then sets. The wood is now sealed.
- Use a fine grade of glass paper to lightly sand the surface because the first coat tends to make the surface rough as it sets.
- Apply the second coat also thinly, check for any runs or drips and let it set to a smooth finish.

Note: Varnish should not be applied to oily woods such as teak because after a short time it will flake off.

Wax

Silicone wax gives a medium gloss finish. Like varnish, it allows the grain of the wood to show through. Wax must only be applied on sealed wood, otherwise it soaks in and never shines.

- i) Apply a coat of cellulose sanding sealer (this sets in five minutes if applied thinly).
- ii) Use a clean cloth to rub a thin coating of wax onto the surface.
- iii) Use a clean soft cloth to buff the wax to a shine. Add at least another two coats of wax and buff each time.

Oil

Cooking oil (vegetable) or special teak oil can both be used to give a water and heat resistant, satin finish. An oil finish does not crack or peel off.

Oil can be applied with a clean cloth directly onto the smooth, unsealed surface of the wood. Five to ten minutes should be allowed between coats to allow each coat to soak into the wood. Three coats is normally sufficient.

To maintain a good finish oil should be applied regularly about every six months.

Oily woods are best finished with teak oil, a mixture of linseed oil, waxes and turpentine.

Paint

Paint provides a water resistant, coloured protective coating.

All paints give a better finish if a number of thin coats are applied rather than one thick coat.

Traditional gloss

An oil based paint. Three coats are required:

1. A **primer** coat. A primer is a paint that sets quickly and seals the pores in the wood.
2. An **undercoat** coat. Undercoat paint contains a lot of pigment (colour) to stop the original surface showing through.
3. A **gloss** top coat. Gloss paint contains less pigment and more clear varnish to provide the shine. If the paint also contains polyurethane it will have a tough, scratch resistant finish.



Acrylic gloss

A water based paint that only requires a primer and top coat. The gloss is not as shiny, or the finish as scratch resistant as a polyurethane paint.

Emulsion

A water based paint that often contains vinyl to make it more water resistant and easier to wipe clean. Normally only two coats are required, the first coat seals the wood like a primer. The finish can be matt or satin only, gloss is not an option.

Don't apply varnish or paint too thickly, many a good piece of work has been spoilt by poor painting.



French Polish

This is a traditional polish made from shellac, used on high quality furniture and antiques. It gives the best looking finish of all, but is very difficult to apply and is not water or heat resistant.

KEY WORDS Sealer: Matt: Satin: Primer: Undercoat:

1. Why is it necessary to apply a finish to wood?
 2. Describe the preparation method that gives the smoothest finish.
 3. Which grade of glasspaper would you use to complete your preparation for a finish to be applied?
 4. Describe the method you would use for sanding a wooden surface.
 5. What are the reasons for using a wood stain?
 6. In what forms can you purchase a clear varnish?
 7. Explain the stages required for varnishing.
 8. What are the advantages of an oil finish?
 9. Explain the reason why traditional painting uses three different coats.
 10. What are the differences between Acrylic paint and Emulsion paint?
- A** State which finish you would choose for the following wooden products and give reasons for your choice.

A jewellery box made from mahogany.

A garden bench made from oak.

A kitchen cupboard made from plywood.

A fruit bowl made from teak.

A mirror frame made from knotty pine.