

WHY IS A FINISH APPLIED TO WOOD?



1. A good quality finish such as varnish, offers a level protection to the surface of the wood.
2. A finish will enhance the natural grain, lifting the perceived value of the product.
3. Preservation of wood is another reason for applying a finish, lengthening the lifespan of the piece of furniture / product.
4. A dye applied as a finish, will change the 'colour' of the wood, giving the illusion that 'cheap' pine is actually more expensive mahogany.
5. A finish will provide a gloss, matt or silk finish, depending on preference of the customer.

www.technologystudent.com © 2017

NATURAL WOOD AND WAX FINISHES

Wax - for interior use. Popular, in Victorian times and has recently seen a resurgence. Supplied as a liquid or paste. It is good practice to apply a coat of wax periodically, which helps to refresh the finish.

A first coat of wax is quickly rubbed into the surface, in a circular fashion. Use a clean cloth to remove surplus wax. Leave to dry over night and then apply another coat, following the grain. When dry, polish the surface with another soft cloth.



www.technologystudent.com © 2017

VARNISH

Varnish is supplied as water based or oil based. Water based varnish is an environmentally friendly version of the oil based varnish.

Polyurethane Varnish and Yacht Varnish, give a quality, protective finish. Varnish is UV resistant, protects the surface of the wood and helps prevent cracking and shrinking. It can be purchased as a matt, silk or gloss finish. Varnish is applied by brush or spray gun



www.technologystudent.com © 2017

INITIAL PREPARATION

Filling cracks - **PVA or cascamite** mixed with wood dust producing a paste, which is then applied to cracks and gaps. **Premixed wood fillers** are also available, as powders to be mixed with water or applied straight from a tube.

Shellac - Supplied in stick form, in various shades. It is melted into holes / cracks in the wood with a soldering iron and then levelled, usually with a chisel.

Wax sticks - useful when repairing scratches, nail holes or cracks. The stick is warmed up and when soft, pressed into the hole / crack. The surface is then levelled with glass paper.

www.technologystudent.com © 2017

NATURAL WOOD AND OIL FINISHES

Oil - applied using a brush or a cloth. **Teak oil** (a blend of solvents and linseed oil) is for external garden furniture and **Danish oil** for interior furniture and woodwork.

Danish oil is a mixture of thinned oil and varnish. The oil penetrates the wood fibres, whilst the varnish leaves a layer on the surface. It gives a natural glaze to wood and is a good choice for kitchen worktops or surfaces, being used for food preparation.



www.technologystudent.com © 2017

WOOD DYE AND STAIN

Varnish puts a layer on the surface of the wood. Dyes / stains, penetrate the surface fibres. Dyes/stains are water or solvent based. They need a further finish such as varnish (matt, silk, gloss) or wax, to protect the surface.

Dyes and stains are supplied in a range of vibrant colours or wood based tones. Most can be thinned and mixed, to achieve the required colour/shade.

They are applied with a paint brush, a soft cloth or even a paint pad.



www.technologystudent.com © 2017

GENERAL WOOD FILLERS



SHELLAC STICKS



WAX STICKS



www.technologystudent.com © 2017

SHELLAC AND POLISHES

Shellac is a non-toxic, natural finish, produced from processed resin, that is secreted from the forest inhabiting insect, Laccifer Lacca, found from India to the Far East. The processed resin, which, in the form of light brown flakes, are mixed with alcohol, producing a liquid. Shellac is the basic ingredient of a range of polishes, including white polish and button polish.

Shellac based polishes, produce a high quality finish, typical of vintage furniture, but they do not withstand water or heat very well.



www.technologystudent.com © 2017

PRIMERS, UNDERCOATS AND TOP COATS

Paint primer is required to seal the wood, so that there is a stable base for the application of the next paint, which is undercoat.

Undercoat is supplied in a restricted range of colours and is selected according to the colour of the final top coat. The undercoat blocks all blemishes, grain and marks, providing a blank canvas for the top coat.

The **top coat** provides the final finish, in terms of the colour and whether it is matt, silk or gloss.



www.technologystudent.com © 2017

SANDING / GLASS PAPERING NATURAL WOOD



Different grades of glass paper are used, to produce a blemish free and smooth finish.

Glass paper is often referred to as sand paper. There are other abrasive sheets including aluminium oxide, silicon carbide and garnet. Use a coarse abrasive, followed by medium and then fine, when preparing a surface

GRADE	GRIT SIZE	DENSITY
EXTRA COARSE	60 TO 40	S.2, 2, 3
MEDIUM COARSE	80 TO 100	
MEDIUM	120 TO 180	1, F.2, m.2
FINE	220 TO 280	2/0, 0, 1
VERY FINE	320 UPWARDS	FLOUR

www.technologystudent.com © 2017

PAINT AS A FINISH

Paint is basically the same as varnish, although it contains coloured pigments. Paints are applied with a brush or spray gun and add a protective layer to the surface. Paints are available as matt, silk and gloss finishes and they are either water based or oil (solvent) based. Unlike many other finishes that enhance the natural grain of the wood, paints hide the grain.



www.technologystudent.com © 2017

WATER BASED (ACRYLIC EMULSIONS) OR SOLVENT (OIL) BASED?

Water based paints (acrylic paints) are environmentally friendly. They dry more rapidly and do not produce the odour associated with solvent based paints. After use, brushes and equipment can be cleaned in soapy water.

Solvent based paints are more damaging to the environment and the health of humans. Brushes and equipment have to be cleaned with thinners or white spirit. When drying, the solvents evaporate, releasing volatile organic compounds (VOCs) into the atmosphere.



www.technologystudent.com © 2017

NATURAL WOOD FINISHES

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS <https://www.facebook.com/groups/254963448192823/> www.technologystudent.com © 2017 V.Ryan © 2017

FOR DETAILED INFORMATION, WORKSHEETS, EXERCISES, AND ANIMATIONS ON FINISHES TO WOODS - GO TO - <http://www.technologystudent.com/joints/joinindex.htm>