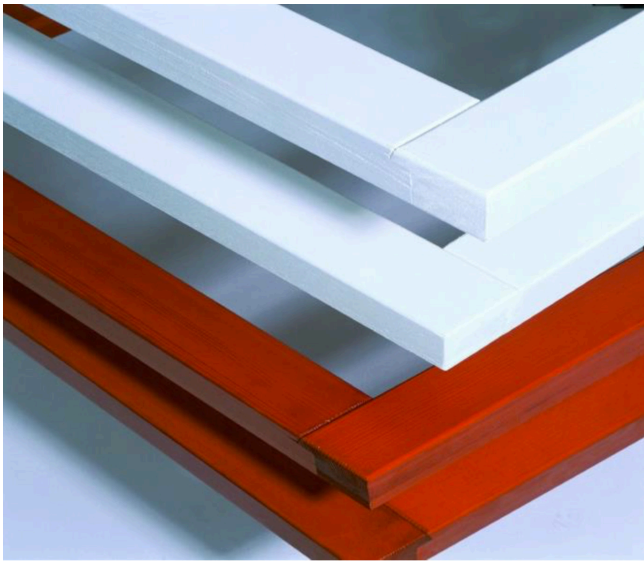


Surface preparation - factory finished joinery

Application guidelines

A good machined finish is usually the best surface preparation for joinery coatings applied on softwoods. Sharp cutters shear the timber fibres cleanly, leaving a uniform absorbent surface which provides a good key for priming or a base stain. A blunt cutter will compress and polish surface fibres, producing an inconsistent surface which may appear patchy when stained.



Conventional sanding can tear and shred surface fibres, increasing grain raising, particularly with waterbased coatings, while high speed sanders, with a fine grade of abrasive paper, tend to polish the surface, giving a result similar to a blunt cutter.

These comments about sanding may seem counter intuitive, but the following simple test will illustrate the effect:

- Take a section of machined softwood and cut into two pieces.
- Using an orbital or belt sander with a coarse grade of abrasive paper, sand one face of the first section.
- On the second piece of timber draw a sharp cabinet scraper, plane blade or chisel across one face of the section.
- Dip both pieces into a basecoat stain or dipping primer (waterbased products will exaggerate the result). The sheared surface produces a far superior result to the sanded surface.

Some hardwoods are fibrous by nature, and grain raising will occur, regardless of how these timbers are machined and sanded. These timbers should be coated before attempting to achieve a good surface. With translucent finishes, the penetrating stain coat does not close the surface and so the first build coat must be applied before the surface finish can be significantly improved. Having closed the surface it can be denibbed to remove any raised fibres, before the final topcoat is applied.

Sanding

Sanding is commonly used for small scale, purpose-made joinery. Finishing results can be greatly improved by limiting sanding and denibbing processes and selecting the appropriate grade of abrasive paper.

This is very important where automatic drum sanders are used. The grit of the belt on the first drum should be as fine as possible to prevent the substrate being ripped open, ideally 120, with subsequent belt grades coordinated to close the surface and the finishing belt 220 or 240 grit.

There are three belt machines available that include one belt rotating at 900 to the other two. Tests show an improved surface and closing of the substrate is achieved with this system especially when the reduction of raised grain profile is a priority.

Brush type denibbing machines also provide a good level of surface when used correctly within the finishing process.

Wire wool

Wire wool has traditionally been used for finishing in the cabinet making and french polishing trades. However this should not be used for external work as small particles of wire can become trapped in the surface and rust when exposed to weather, which degrades the finish.

Finishing pads

Nylon and foam filled denibbing pads are very useful for denibbing, particularly on mouldings, and profiled sections. The fine grit efficiently removes protruding fibres while discouraging over sanding and the removal of the coating from sharp edges.