

Timber Finishing Options

Standard Finish

Stegbar cedar windows and doors are supplied ex-factory with a clear water repellent treatment (unless otherwise specified). This treatment is designed to prevent ingress of water into the surface of the cedar and in particular the end-grain of the cedar in the period between manufacture and when the windows and doors are finally painted or stained after installation in the building. This product is designed to accept all types of surface finishes. It does require scuffing, when a penetrating stain is applied within seven days of the application of the water repellent treatment.

Optional Finish*

In some locations Stegbar cedar windows and doors can also be supplied primed with a water based opaque acrylic primer. This application is designed as a protection prior to painting and as a prime coat for water or oil based undercoats. Surfaces which have been dressed back to timber must be reprimed with an acrylic primer. Where timber is exposed for more than 90 days, subject to the prevailing weather conditions, it may be necessary to lightly sand and reprime.

The following applications are recommended finishes over the primer.

Oil/solvent based

- Lightly sand.
- Apply one coat of an oil based undercoat, followed by two oil based topcoats.

Acrylic/water based

- Lightly sand
- Apply one oil/solvent based undercoat, followed by two acrylic topcoats.

*Call 1800 681 168 to see if the optional finish is available in your area.

Timber information

For the last 60 years Stegbar has produced timber windows and doors predominantly from western red cedar. This species has many features and advantages. It is a highly durable softwood, however it does require surface finishing to:

- Improve and enhance the natural warmth and appearance of the grain structure of cedar.
- Protect it against the elements when it is exposed to the weather.
- Protect the internal surfaces to prevent marks and stains from absorbing into the timber.

In order for surface finishes to provide a reasonable surface life (eg 3-5 years), the finish must contain a degree of pigment in order to screen out the UV rays. At this point in time clear finishes will not provide a reasonable surface finish life.

It is a fact that clear or transparent surface finishes show cedar to its best advantage however it is not practical to use a clear finish externally, or internally on horizontal surfaces which receive sunlight. While the UV rays are filtered to some degree by toned glass and to a lesser degree by clear glass, UV resistant finishes should be used internally on surfaces which are subjected to direct sunlight.

Performance factors for semi transparent stain finishes

Stegbar is not in a position to provide any type of guarantee on the performance which will be achieved with any particular surface finish. The life achieved with any surface finish is dependent on a number of factors which are beyond Stegbar's control, including:

- The type of finish applied
- The preparation of the surface prior to the application of the finish.
- The method and conditions under which the finish is applied ie correct application according to the manufacturer's recommendations.
- The cured/dry film thickness.

Surface preparation

Do not at any stage use steel wool or similar steel scourers otherwise the ferrous particles in the steel wool will react with the tannins in the timber and produce black marks. The tannins in the cedar will be activated by the application of water based acrylic finishes. Black marking is not confined to cedar and will occur with most other species. The lighter the timber colour the more pronounced will be the black marks.

All nail holes should be filled with a suitable filler, which is compatible with the surface finish to be used, both in filler type and colour. The filler should be applied after priming. Steel fixings which are subject to rust, must not be used as the reaction between the tannins in the timber and the ferrous material, will result in black marks on the timber, which will show through the filler and the paint or stain.

The surface should be sanded with 180 grit sandpaper in the same direction as the timber grain. Do not sand across the grain. A 3M Scotch-Brite type of pad or fine sandpaper (220 grit) can be used to achieve a finer finish.

Care should be taken in the preparation of the surface to remove any sharp corners and edges off the timber as this is the point where the least film can be achieved which in the long run is the point of breakdown in the surface film.

Prior to the application of a stain or a paint, the timber surface must be completely dry, otherwise the heat in the sun will bring the moisture out of the timber to the surface, resulting in lifting and bubbling of the applied finish.

Removal of marks and stains prior to the application of a semi-transparent finish

It is important that any marks and stains are removed prior to the application of a semi-transparent finish otherwise those marks will be highlighted by the applied finish. Marks and stains can be removed by one of the following:

- Sanding with 180 grit sandpaper in the direction of the grain.
- The application of a product designed to remove black marks on timber (eg Timber Reviva produced by Intergrain). Application instructions and precautions shown on the product should be followed closely.

Recommended pigmented surface finishes for external and internal surfaces on Cedar and Hardwood.

It is not possible at this stage to apply a clear finish to timber which will not react to the UV rays from the sun. There are a number of lightly pigmented surface finishes on the market for which manufacturers make various claims as to the performance of the finish. Stegbar through experience is only able to recommend two pigmented surface finishes which will perform in exterior applications.

Intergrain DWD (Door, Window and Decking finish) –Application to Cedar

This product is supplied by Orica Woodcare (Dulux) through various paint and hardware stores. Orica Woodcare recommends an application of “Dimension 4” after suitable preparation prior to the application of the DWD. Intergrain DWD is a lightly pigmented water based acrylic finish. On application it takes on a cream coloured appearance, this allows the painter to determine where the finish has been applied in the course of its application. As the finish dries, the cream colour disappears to the point where it takes on a natural pigmented honeycomb colour. A wet edge must be maintained during the application of the finish.

Sikkens – HLS/Filter 7/Supernatural – Application to Cedar

Sikkens recommend the application of 1 or 2 coats of HLS (solvent based) depending on the depth of colour required and the extent to which it penetrates the timber. Two coats are recommended for cedar. Cetol is a solvent based penetrating stain. It is available in a range of tinted stains from natural (pine colour) to dark/walnut. The Cetol HLS should be followed by two coats of Filter 7, which is an oil-alyd resin system. Alternatively the Cetol HLS should be followed by two coats of Supernatural which is a water borne acrylic system. The Supernatural has a cream coloured appearance, this allows the painter to more easily determine where the Supernatural has been applied. The appearance of the finish changes to the selected tint as the film dries.

Finishes applied to Hardwood/Merbau

Merbau is subject to a greater degree of tannin bleed than cedar and other hardwoods, for this reason products containing Merbau should be allowed to weather for as long as possible, up to 12 weeks, prior to the application of paints or stains.

Sikkens recommend three coats of Filter 7 or Cetol HLS. Please refer to Sikkens brochures for application notes and the available colour range, in particular with reference to surface preparation.

Application notes

As well as making sure that the timber is completely dry prior to application of the finish, it must not be applied if there is a likelihood of rain or a heavy dew within 4 hours of its application, otherwise the integrity of the finish will be damaged. The performance of the above products is totally dependent on the dry/cured surface film thickness. This film thickness must reach a minimum of 80 microns, in which case the wet film thickness must be in the order of 200 microns. This film thickness can only be achieved by the application of three full coats to the surface. Because of the fact that the above products are dearer than most other paint/stain finishes, there is a tendency for the person applying the finish to rush it out, to obtain the broadest possible surface coverage. This is counter-productive to achieving a minimum 80 microns film thickness. It is also important that the 80 microns of film build is applied to all surfaces including the edges and corners. Care must also be used in applying the finish, so that it is applied in a consistent pattern, so that areas are not missed in the course of the application. A wet edge must be maintained as the finish is applied.

Particular care should be taken to ensure that end-grain sections receive the additional attention which is required, to achieve the 80 microns of film build on the end-grain. This also applies to the top and bottom edges of the following sliding doors and window sashes, hung doors and window sashes.

Importance of following paint manufactures recommendations

Please read and follow the paint/stain manufacturer's recommendations thoroughly. The finish which is selected for application should be trialled in the most hidden location so that, if the finish or the colour is not what was expected, it can be changed with a minimum of inconvenience. Applied finishes should be inspected at 6 monthly intervals so that additional coats can be applied with a minimum amount of preparation. Additional coats should be applied well in advance of any deterioration of the previously applied finish.

Precautions in the application of opaque acrylic finishes – Tannin bleed

Care must be exercised in the application of acrylic finishes. White and light coloured acrylic finishes are subject to "Tannin bleed-through". This can be prevented by the application of an oil based undercoat. A proven quick drying product is Cover-Stain by Zinsser U.S.A available from Bunning's, Bristol and Dulux paint outlets. Orica have an oil based "Stain Blocker" sold under the Dulux name as "Prep lock quick dry Oil Based Stain Blocker". The external application of acrylic finishes may result in sticking and adhesion of mating/contact surfaces due to heat softening of acrylic finishes. Where a full acrylic system is used, consult the paint supplier to determine whether it is practical to delete the undercoat and apply two full top coats of a paint designed for direct to timber application. Semi-gloss or Satin finishes are recommended on timber products to reduce the effect of timber grain show-through which is more apparent with white and light coloured finishes.

Please consult a reputable paint or stain supplier for specific advice on the most suitable preparation, application, and type of finish to achieve the finish required for both Cedar and for Harwood.