

The Family of CD50 Protection Oils has been developed to deeply penetrate into dry timber and protect the timber from the inside out.

Features of the CD50 Protection Oils:

- They are not coatings – they penetrate deep into timber and cannot peel or flake
- They help maintain the dimensional stability of the timber i.e. help keep timber straight, and reduce warping, splitting and cupping
- They are effective against a wide range of mould, fungus and the bacteria that cause rot
- They are water repellent, and protect against moisture absorbed into timber from the air e.g. humidity and dampness
- They are safe and easy to use
- Maintenance is easy – just wash and reapply – no sanding required

CD50 and CD50 Extreme are completely compatible with each other and with all the Colourtones. They can be applied over each other

CD50 is best for

- Any dry timber
- Weatherboards
- Joinery
- Trellis
- Front doors
- Garage doors

CD50 Extreme is best for

- Thick profile timbers
- Logs, beams, posts
- Pergolas
- Decking – pine, hardwoods
- Outdoor furniture
- Extreme conditions e.g. structures over water, high humidity

Do I need CD50 or CD50 Extreme?

CD50 is the protective oil originally developed for cedar weatherboards and all species of dry timber

CD50 Extreme has been developed for thicker timbers and challenging conditions

CD50 helps control a wide range of mould, fungi and bacteria, and is the oil of choice for

- Weatherboards and timbers up to 50 mm depth
- Situations when better weather protection is needed at the surface

CD50 Extreme helps control a wide range of mould, fungi and bacteria, and penetrates deeper and faster than CD50, which makes it the oil of choice for

- Thicker profile timbers over 50 mm depth – logs, posts, beams, pergolas, slabs
- Factory pre coating, and first coat when less time is available between first and second coats
- Situations where microorganisms could be a problem e.g. high humidity situations, structures over water, indoor heated swimming centres etc
- Hardwoods eg decks, outdoor furniture

When time is critical eg scaffold costs, CD50 Extreme can be used for the first coat, followed by CD50 only days later.

Trial tests should be carried out to determine actual recoat time, and to test the desired colour will be achieved (CD50 Extreme may suck some colour into porous timber) Read details for this procedure on the website www.cd50.co.nz

Important Points for use of CD50 and CD50 Extreme

As the CD50 Oils are penetrating oils, they must be able to penetrate freely into the timber. Any surface barriers, sealants or coatings, must be removed, and retained moisture, or insufficient time between coats, must be avoided. Do not dilute, add thinners or alter in any way.

- Timber must be dry (less than 17% retained moisture)
- Ensure there are no coatings, sealants or barriers that could affect the penetration of CD50
- Use the correct size Colourtone for the pail or can of CD50 (if not using a Colourtone, the timber will silver with exposure to sunlight)
- Shake/stir the Colourtone to ensure it is evenly dispersed before adding to the CD50
- Make sure all of the Colourtone is added to the can or pail
- Stir thoroughly before use and frequently during use – especially greys and light colours
- Apply CD50 to both side of weatherboards before fixing (where possible)
- Apply evenly with brush, speedbrush, roller or spray
- Remove excess drips and runs. Timber should be only slightly oily after application
- If dusty earthworks are being carried out e.g. new subdivision, apply second coat after completion of all earthworks (timber may require light wash with SARAClean to remove dirt)
- Wash up in turps or detergent
- Do not use on veneers
- On some plywoods, CD50 may accentuate underlying characteristics. The use of Colourtones can help camouflage this. Contact Churton Pacific for advice
- Allow for longer penetration time on hardwoods

Colourtones

CD50 Timber Protection Oils are clear oils. When used clear on exterior surfaces, the timber will silver naturally with exposure to sunlight, while the CD50 deep inside the timber continues to protect. CD50 can be used clear and the timber washed regularly to remove silvered fibres. Colourtones can be added to the clear CD50 oil to retain or enhance the natural colour of the timber.

Important Points for use of Colourtones:

- Colour samples in printed material are a guide only – different timbers will affect the final appearance of the Colours – Testpots are available – try before deciding
- Allow for Colours to lighten naturally over the first few months as the oil moves away from the surface, and some weathering occurs
- Colour retention is more durable on rough sawn timber than on dressed timber
- To maximize colour retention, use Colourtone in all applications

Application and Maintenance of CD50 and CD50 Extreme

Preparation and Application

Important: Do not apply over old coatings, remove by sanding or stripping. Do not thin or alter in any way

New Timber	Ensure surface is clean & dry. A light SARAClean wash may be required to remove dirt accumulated during construction	If CD50 Extreme applied at a Precoating factory 1) Apply second coat to accessible surfaces after construction or up to 6 weeks after precoating. CD50 or CD50 Extreme applied on site 1) Apply first coat of CD50 or CD50 Extreme to all sides and ends. 2) Apply second coat to accessible surfaces after 1-6 weeks depending on timber porosity and environmental conditions. Apply sparingly to new hardwoods.
Restored/ Cleaned Timber		
Old Dirty or Weathered Timber	If no coatings – wash with SARAClean (DeepClean if very dirty or stained)	When clean & dry: 1) Apply first coat of CD50 or CD50 Extreme. 2) Apply second coat after 1-6 weeks (depending on timber porosity and environmental conditions).
Existing or Failed Coatings (stains, paint, polyurethane varnish,oils)	Remove any coatings (sand or strip with Naked Stripper) Or phone Churton Pacific (see below)	
Log Buildings and thick timber	Apply CD50 Extreme at a rate of 5-7 sqm / litre, with minimum 1 application per 100 mm diameter of log, when moisture percentage is suitable, i.e. 4 coats for a 400 mm diameter log. If newly felled logs are to be treated, apply once the surface has started to dry, leaving the ends or preferably the interior untreated to allow the moisture to be driven out. This will slow drying and help prevent checking on log ends. Apply the calculated number of applications liberally – can be applied on consecutive days.	
LOSP treated timber	CD50 Oils can be used on LOSP treated timbers where wax levels are less than 2%. LOSP must have thoroughly evaporated (dried) until no smell remains. On dressed LOSP timber – brush first coat on sparingly.	

Application and Maintenance of CD50 and CD50 Extreme

Maintenance	Reapplication*
<p>Regular cleaning is recommended to remove pollen, dust, dirt, soot, salt etc.</p> <p>CD50 Oils with colourtone Lightly wash with SARAClean</p> <p>CD50 Oils without colourtone Timber can be left to silver naturally - lightly wash with SARAClean when necessary (DeepClean if very dirty or stained) If silvering is not the desired look - wash with SARAClean every 12 -18 months or earlier if necessary</p>	<p>Reapply CD50 Oils every 2 – 6 years depending on exposure to weather and sunlight, and timber type</p> <p>Coastal and exposed situations 2-3 years</p> <p>Protected situations 4-6 years</p> <p>Decks if using Clear CD50 Extreme 2-3 yrs</p> <p>Decks & handrails with colourtone 12-24 months</p> <p>(Wash with SARAClean (use DeepClean if very dirty or stained) and, when dry, apply one coat of CD50 or CD50 Extreme)</p>
<p>Due to the harsh NZ sunlight and high UV, timber exposed to greater amounts of sun will be under significant stress and require more regular application of CD50 Oils. These situations include northerly aspects, reflections off water, white sand or concrete, and horizontal surfaces) In these situations, the first sign will be fading of the colour. Simply wash the timber with SARAClean, and reapply one coat of CD50 or CD50 Extreme as needed.</p>	
<p>Old failed surface coatings can be removed with Naked Stripper. It is recommended that highly skilled and trained operators carry out this restoration process. The restoration process is followed by the application of CD50 or CD50 Extreme. Timbers that are warped and cupped will tend to return to near original profile and flatness. The dimensional stability and natural appearance of the timber will be maintained for many years with maintenance applications of CD50 or CD50 Extreme. Contact Churton Pacific Ltd for Restoration Advice.</p>	

Technical Information

Typical Coverage Rates	Weather & Temperature	Mould & Fungus
New dressed timber: 12 -15 m2/litre	Cold temperatures affect the viscosity of CD50 Oils and slow the rate of absorption. In cold weather, place containers in a warm place overnight prior to use.	Timber must be free of mould before application. Even clean looking timber may be contaminated with mould spores. If CD50 Oils are applied over mould spores, dark stains will appear.
New & old bandsawn: 7 - 9 m2/litre	Moisture content of timber must be below 17%.	If in doubt, clean timber with SARAClean and allow to dry, before applying CD50 Oils.
Old restored bandsawn: 4 - 7 m2/litre	Do not apply CD50 Oils to exterior timbers if rain is likely within 6-8 hours of application	Use WAY2GO to remove mould stains, or contact Churton Pacific Ltd. for advice.
Shingles and Shakes: 2 -5 m2/litre		

STORAGE

Store in a cool dry place with the lid tightly on. Do not let pails get too hot (over 50° C). Do not expose pails to fluctuations in temperature.

Do not store for longer than 1 year, as pails may split. Do not store where damage could occur if pails split. Check pails regularly and transfer to new pail if sucking in occurs.

JOINERY GLAZING & GLUES

Glues and sealants: Compatible sealants or glues are Holdfast 'Fix-All', Holdfast Gorilla Glue, Bostik 'Seal N Flex', Bostik 'SAFestud', and 3M 'Scotch-Seal'.

Glazing: If glazing with linseed oil putty or similar, "stripe" the rebate with 2 coats WETSHIELD. When fully cured, glaze as normal.

To protect adjacent materials: Where gib, plaster or other absorbent material abuts timber protected with CD50 Oils, "stripe" the mating surfaces or edges with 2 coats of WETSHIELD to prevent the CD50 Oils migrating into the absorbent materials. Exterior painted or plastered

surfaces below CD50 protected timbers, may become stained by leachate from above. To minimize this, paint edges underneath the timber with 2 coats of WETSHIELD.

Fastenings: CD50 Oils will not corrode galvanised iron, silicon bronze, stainless steel or copper nails.

Colourtones may lightly stain lead flashing and other substrates contacted by leachate.

Garage Doors: CD50 Oils will soften rubber-based adhesives. If the glue holding the timber to the frame is rubber-based or of unknown origin, run glazing sealer along the back of the door where the timber meets the frame. Then the timber will stay intact if CD50 Oils weaken the adhesive.

Butynol surfaces: CD50 Oils will affect Butynol and rubber surfaces if not wiped off soon after contact. CD50 Oils applied to wooden shingles do not normally affect the Butynol underlay.

Timber protected with CD50 Oils can become stained if in constant contact with bituminous-type materials. When applying – protect adjacent surfaces. Protect surfaces below with drop cloths folded to triple thickness.