



WOOD-X CEDAR OIL

WOOD-X DECK OIL

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WHAT ARE WOOD-X WOOD OILS?

Wood-X wood oils are non film forming, viscous oils designed to penetrate into absorbent, chemical preservative free exterior timber products such as Western Red Cedar weatherboards, fascia, boards, beams and mouldings.

Wood-X penetrating wood oils provide anti-fungal and water repellent qualities to reduce the speed of moisture uptake and loss in exposed exterior timbers, thereby limiting the potential for warp, twist, cup, splitting and surface checking.

Wood-X wood oil coatings will improve the dimensional stability of naturally durable exterior hardwood timbers, including decking. Wood oil migration into dense, less absorbent hardwoods will be shallower and progression slower by comparison to lower density, more absorbent timbers.

TYPICAL EXTERIOR USES

Timber Weatherboard	Fascia
Mouldings	Structural Posts and Beam
Wall Shingles	Roof Shingles *
Timber Garage Doors	Boards
Hardwood & Cedar Decking	Fences
Outdoor Timber Furniture **	Pergolas

* Drinking water should not be collected from Wood-X coated surfaces

** Allow the oil to thoroughly penetrate the timber surface before use

PHYSICAL PROPERTIES

Vehicle type	Mineral oil
Pigmentation	Natural coloured oxides and selected pigments
Other	Biocide package
Finish	Progressive migrating type
Colour	Natural or 'Clear Base' (no UV protection) and a selection of standard colours from the Wood-X colour range. Custom colours available on request.
Dry to touch (minimum)	24-48 hours on Band sawn face Western RedCedar. Extended periods on Dressed surfaces and hardwoods, particularly during unfavourable drying conditions.
Initial Re-coat time (minimum)	6-24 weeks. As a general rule, if the initial re-coat does not penetrate and bind to a test area of the primary coat, set aside and wait for a further month before trial coating again. Proceed only when the new coat will penetrate and bind to the primary coat.
Theoretical coverage	Dependent on surface condition and type
Dry film thickness	Penetrating
Initial no. of coats	1 (to achieve surface saturation)
Thinning	Do not thin
Clean up	Clean up with mineral turpentine and/or hot water and detergent. Use a clean, dry absorbent cloth to wipe initial excess or to complete the cleaning process.

PERFORMANCE AND LIMITATIONS

PERFORMANCE

- Non film forming so will not peel or flake.
- Provides a more natural, vibrant and lively oiled look than traditional oil stains, when freshly coated.
- Offers good water repellent qualities.
- The 'Clear Base' option provides no apparent UV protection for the timber surface i.e. Wood-X 'Clear Base' coated timber will gradually weather to a silver grey, if left exposed to the weather elements.
- Additional UV protection is offered with the 'Coloured' range.
- Easily applied and re-coated (fresh brush strokes and lap marks are easily feathered out).
- Requires minimal surface preparation.
- Inhibits moss and mould growth.
- With correct surface preparation, Wood-X can be applied to new and old timber alike (the appearance will vary however).
- Designed and manufactured in New Zealand specifically for harsh, local conditions.
- Easy to maintain.
- Reduces the potential for warp, twist, cup, surface checking and splitting (will vary according to timber type, extent of weather exposure and timber condition).

LIMITATIONS

- Wood-X oils must be mixed thoroughly, before and during use.
- Wood-X oils must be used as supplied i.e. do not thin.
- Will not kill existing mould. Use Resene Moss and Mould Killer (or similar) to manufacturers instructions prior to Wood-X oil application.
- Will not penetrate through existing paint or film forming type coatings.
- Will require an additional maintenance coat applied at approximately 12-18 months following the first re-coat, or as required. Re-coat periods will vary considerably with coating colour, personal preference for appearance, timber type, timber surface type (Dressed versus Band sawn versus Rough sawn) and degree of exposure to the weather elements etc.
- In New Zealand conditions, north facing areas and/or surfaces impacted most by direct or reflected heat and sunlight will typically require more regular maintenance than sheltered or south facing areas.
- Must be applied to dry timber (below 19% Moisture Content).
- Do not apply to exposed surfaces if rain is imminent or expected within 8 hours.
- Following application, excess oil residue may initially run off during periods of rainfall. This will cease as the coating migrates into the timber and pigment binds to the surface. Take care to ensure run off, if any, does not mark or contaminate surrounding areas and/or materials.
- Avoid contact with rubber, adhesives and butyl rubbers. Remove by wiping off immediately with an absorbent, clean and lint free dry cloth if contact occurs.
- Wood-X wood oils with colour tones added are not recommended for surfaces subject to repeated wear or abrasion e.g. entrance way decks.

SURFACE PREPARATION

NEW TIMBER

Ensure surface is dry and free from any contaminants e.g. dirt, dust, loose fibres, pollen, mildews etc.

Wood-X will perform best and appearance of the colour toned range will be more intense and vibrant on Band sawn or Rough sawn surfaces, as these undulating, irregular surfaces are more open to penetration of the Wood-X wood oil and will hold more of the Wood-X pigment or 'Colour'.

Conversely, the initial coat applied to Dressed or smooth timber surfaces may appear patchy in some boards. Application of the first re-coat will assist in evening out this patchiness. Prior sanding of the timber will improve the speed and consistency of penetration into previously uncoated Dressed or smooth surface timber products. Wood-X penetration, consistency of appearance and colour development will improve on exterior, exposed timber surfaces with application of the first re-coat, over the base or starter coat. Correct application and timing of the first re-coat is critical to coating performance and appearance.

UNCOATED EXPOSED TIMBER (GREATER THAN ONE WEEK)

Remove any gross contamination and semi-detached or loose wood fibre. Treat with Resene Moss and Mould Killer (see Resene Data Sheet D80) and carefully wash with clean water, ensuring no damage is done to the timber surface. Do not use a pressure washer or water blaster, unless you are a licensed Wood-X applicator with approved equipment and training. Use a soft bristle brush if necessary to agitate and lift stubborn contaminants, ensuring no damage is done to the timber surface. Allow to dry thoroughly.

WOOD-X COATED TIMBER OVERDUE FOR A RE-COAT

GENERAL

To remove all dirt, dust, grease, moss and mould residue, cobwebs and other contaminants, thoroughly scrub down with a 25 % solution of Resene 'Paint Prep and Housewash' and clean water. Rinse thoroughly with clean water. With softer timbers such as Western Red Cedar, be careful to ensure that the surface is scrubbed softly, so as not to mark or scour the surface. Refer Resene Data Sheet D812.

MOSS AND/OR MOULD INFECTED SURFACES

If any areas of moss or mould infestation exist then treat them with Resene Moss and Mould Killer (see Resene Data Sheet D80), diluted at the rate of 200 grams to 1 litre of clean water. Leave for up to 48 hours to achieve full kill. For heavy infestations more applications may be needed.

WEATHERED GREY SURFACES

To produce a clean and sound surface for coating, thoroughly sand to remove any grey, weathered timber. If timber is Band sawn or Rough sawn, then scrubbing with a stiff nylon brush can be carefully employed for this purpose, whilst ensuring the scrubbing action is not sufficiently harsh to damage or mark the timber surface.

CAUTION: Sanding dusts from some timber species are considered hazardous to human health. Treat all dusts as potentially harmful by wearing an efficient, effective dust mask.

RE-APPLICATION

Apply by brush, roller or spray. Saturate the surface of absorbent timbers with Wood-X penetrating wood oil. Apply more sparingly to dense timbers e.g. a heavy hardwood. During application stir or shake the contents of the container frequently to ensure even

distribution of colour. Apply a full coat of Wood-X at approximately 3-5 square metres per litre, depending on porosity of the surface.

A second coat may be applied after a minimum of 6 weeks and the ideal would be 3 to 6 months. This is to allow the first coat of Wood-X to penetrate the initial, outer surface. Re-coat times will vary considerably with coating colour, personal preference for appearance, exposure to the weather elements, timber type, timber surface (Machine Dressed v's Band sawn v's Circular/Rough sawn) and so on. As a general rule, if the initial re-coat does not penetrate and bind to a test area of the primary coat, set aside and wait a further month before trial coating again. Proceed only when the new coat will penetrate and bind to the primary coat(s).

NOTE: Timber must be allowed to dry out thoroughly before re-application of Wood-X wood oil. Spreading rates for Wood-X wood oil will depend on the relative roughness and porosity of the timber. Please refer to the 'Typical Coverage' details in this document.

Regular maintenance of all areas is recommended. Please consult this document or www.wood-x.co.nz for the most up to date guidelines.

COLOUR AND MIXING OF THE 'COLOUR TONE' RANGE

It is important to thoroughly shake or mix, before and throughout use to achieve a uniform finish. Wood-X penetrating wood oil is supplied in containers of 'Clear Base' and in a range of colours from the current Wood-X contemporary selection. Colours, though sometimes supplied pre-mixed, are generally created by adding colour tint pots of varying sizes to suit the standard 1L, 4L, 10L, 15L and 20L pails of 'Clear Base'. Before adding to the 'Clear Base' pails, please ensure that the correct Tint pots have been supplied with your order. Trial your chosen colour on a small piece of waste timber surface, to check for colour accuracy and material compatibility. Wood-X accepts no responsibility, either expressed or implied for the mixing or application of incorrect colours by the user.

WARNING! 'Clear Base' option is not colour toned and has no apparent colouring effect when applied other than to visually darken the timber surface, in a manner similar to splashed water. This is because 'Clear Base' contains no pigment or tint colouring. As such it provides no UV protection for the timber surface i.e. Wood-X 'Clear Base' coated timber in exterior applications will gradually weather to a silvery grey, if left exposed to the elements.

Shake the colour tint pots to mix and then add to the 'Clear Base' pails, ensuring the colour is blended well by shaking and/or stirring the mix. Ensure all oil tint is removed from tint pot by shaking and rinsing out with a small quantity of 'Clear Base'. Blending and mixing is best carried out 2 hours before use to ensure a more uniform colour during application. Shaking or stirring again just before and during use will be required to keep the colour uniform.

The natural base colour, grain orientation and porosity of any timber will affect the appearance of the Wood-X Colour Toned coating (and 'Clear Base'). It will generally appear darker on both darker and/or more absorbent timbers and lighter on lighter toned and/or less absorbent timbers. However, some colour tones will lighten dark timbers. With timber species such as Western Red Cedar, a range of colours and grain exist within and between each piece, therefore it is best to test coat a wide selection of these timber pieces to ensure you gain a more general picture of how your finished project may appear.

GENERAL APPLICATION

Wood-X will penetrate or diffuse into the timber surface most readily when the coating is warm and the timber surface and atmospheric conditions are warm and dry. Conversely, application and penetration will be slowest during damp, cold climate conditions. For best practice, store Wood-X containers in warm surroundings prior to use and apply in a warm, dry space.

Apply by brush, roller or spray. Saturate the surface of absorbent timbers with Wood-X migrating wood oil at the typical coverage rates for the various substrates listed below. Apply more sparingly to dense timbers e.g. a heavy hardwood.

During application, stir or shake the contents of the container frequently to ensure even distribution of colour through the clear base.

An initial re-coat may be applied to absorbent timbers such as Western Red Cedar after 6 - 24 weeks of weather exposure, as per the guide table on Page 6. Re-coat times will vary considerably with coating colour, personal preference for appearance, exposure to the weather elements, timber type, timber surface (Machine Dressed v's Band sawn v's Circular/Rough sawn) etc. As a general rule, if the initial re-coat does not penetrate and bind to a test area of the primary coat, set aside and wait for a further month before trial coating again. Proceed only when the new coat will penetrate and bind to the primary coat.

Please note that with some colours, particularly on more absorbent timbers and surfaces, true display of the colour may not be achieved until after the first or second re-coat.

The application of both Colour Toned and 'Clear Base' Wood-X will visually freshen and either darken or lighten the appearance of timber. In appearance, this is not too dissimilar to the brief effect water splashed on to a timber surface has. Typically, both coating options will darken the darker and/or more absorbent timbers and lighten the lighter toned and/or less absorbent timbers. It is advisable to test coat a selection of base timber colours and grain options for the best appreciation of the likely overall appearance of your finished project, more so with timber species that typically include a distinct range of colours and grain within and between individual pieces (e.g. Western Red Cedar).

SPRAY Use airless, low pressure spray with a coarse spray tip.

BRUSH For speed and efficiency use a wide, quality bristle brush for rough surfaces.

ROLLER Use a long nap or suitable sponge roller for Band sawn or Rough surfaces.

GUIDE RE-COAT PERIODS FOR WOOD-X CEDAR OIL

WEATHERBOARD	FIRST RE-COAT	SECOND RE-COAT (AFTER FIRST RE-COAT)
Horizontal Dressed Face Boards	8 - 24 weeks	12 - 24 months
Horizontal Dressed Face Boards (Sanded)	8 - 16 weeks	12 - 24 months
Horizontal Band Sawn Face Boards	6 - 12 weeks	12 - 24 months
Vertical Dressed Face Boards	16 - 24 weeks	12 - 24 months
Vertical Dressed Face Boards (Sanded)	12 - 24 weeks	12 - 24 months
Vertical Band Sawn Face Boards	12 - 24 weeks	12 - 24 months

TYPICAL COVERAGE

Coverage of Wood-X penetrating wood oils is dependent on surface condition, timber type, air temperature and other factors. The following is an approximate, typical guide.

	DRESSED TIMBER (FRESH)	BAND SAWN TIMBER (FRESH)	ROUGH SAWN AND BADLY WEATHERED TIMBER
First Coat	9-14sq metres per litre	5-8sq metres per litre	3-5sq metres per litre
First Re-Coat	12-15sq metres per litre	8-10sq metres per litre	5-8sq metres per litre

WOOD-X MAINTENANCE

Wood-X penetrating wood oils should be maintained or re-coated when their properties have deteriorated.

Colour fade and loss of ability to 'bead' water are good indicators. Both factors will be heavily dependent upon degree of surface exposure to direct weathering, timber finish, timber type, Wood-X colour and amount of Wood-X wood oil originally applied to the timber. In simple terms, when colour or water repellent properties have been reduced, maintenance should be carried out. Please note that coating deterioration is likely to vary between walls on any building, as subject to aspect, some are more or less exposed to weathering and deterioration. It can generally be assumed that re-coat frequency on the most exposed areas of a building will require more frequent maintenance than those in the most sheltered areas. Similarly, it may be appropriate on walls that show variable wear from top to bottom because of say overhanging protective soffits, to coat the lower, weathered portions more heavily and thoroughly before feathering or tapering the application into the upper, un-weathered areas.

In instances where previously Wood-X coated timber has deteriorated to a point where restoration of the coating and timber surface is required, please refer to the 'WOOD-X COATED TIMBER OVERDUE FOR A RE-COAT' section earlier in this document.

PRECAUTIONS

1. Avoid contact with rubber, adhesives and butyl rubbers – remove by wiping off immediately.
2. Wood-X wood oils will not penetrate through existing coatings.
3. Contains powerful fungicides. Avoid skin contact. If any skin contact occurs, wash skin immediately and thoroughly with soap and water. Do not scrub the skin.
4. Wear protective full body over wear and elbow length PVC gloves during handling and application.
5. Protect eyes from contact with the oil. Use safety glasses with side shields as a minimum precaution. If eye contact occurs, thoroughly wash with fresh, cold water for at least fifteen minutes and seek immediate medical attention if required.
6. Keep away from heat and open flame. Keep containers closed when not in use.
7. Avoid breathing vapour. Use with adequate ventilation.
8. Drinking water should not be collected from Wood-X coated surfaces e.g. Cedar Shingles or Shakes.
9. Avoid 'ponding' of water on horizontal, high density timber surfaces; as surface whitening of the Wood-X oil product may occur.
10. In areas where rain water may pass over freshly coated Wood-X surfaces before entering guttering and/or water collection systems (drinking water for example), disconnect adjoining rainwater down pipes from waterway access and direct out on to bare ground for at least two periods of direct impact (direct and full wash down) heavy rain periods.
11. In areas where rain water may pass over freshly coated Wood-X surfaces, excess oil residue may initially run off onto adjacent surfaces. This will cease as the coating migrates into the timber and pigment binds to the surface. Take care to check compatibility with Wood-X oils of adjacent surfaces prior to coating and ensure run off if any, does not mark or contaminate surrounding areas and/or materials.
12. Care should be taken to avoid water being excessively channelled over Wood-X coated timber, as this will erode the surface and lead to premature failure of the coating.
13. Do not contaminate waterways by cleaning of equipment or disposal of wastes.
14. Avoid contact with plants and animals.
15. Proceed with care when applying to timber outdoor furniture and other timber surfaces that may come into contact with skin, clothing, absorbent upholstery and/or other adjacent materials that could be detrimentally affected or stained by the Wood-X e.g. adhesives, canvas etc. Allow the timber surfaces to thoroughly dry and penetrate below the surface before use.

Please ensure the most current Technical Data Sheet available at www.wood-x.co.nz is consulted prior to specification or application of Wood-X products. If the surface you propose to coat is not referred to in this Data Sheet, please contact Wood-X for clarification of compatibility or otherwise.

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