New Growth Feature Timbers

# Abodo® Protector™ 2 - Product Data Sheet

Guidance on product specifications, coverage rates, preparation, application, maintenance, and safety

## Table of Contents


TABLE OF CONTENTS ..... 1
OVERVIEW ..... 2
KEY BENEFITS ..... 2
PRODUCT SPECIFICATIONS ..... 3
COLOURS ..... 4
PRODUCT FINISH ..... 6
PRODUCT HANDLING ..... 7
TIMBER HANDLING ..... 7
PERSONAL PROTECTION ..... 7
SURFACE PREPARATION ..... 7
PROTECTOR COLOUR TINTING ..... 9
APPLICATION CONDITIONS ..... 11
APPLICATION METHODS ..... 11
PRODUCT APPLICATION ..... 11
COMPLETION AND CLEAN-UP ..... 13
MAINTENANCE ..... 14
FIRST AID ..... 15
DISPOSAL ..... 15
PACKAGING ..... 15


ABODO



© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26

info@abodo.co.nz
abodo.co.nz

# Overview

A water borne, penetrating erosion stain that will nourish and protect external and internal timbers. Protector 2 uses the latest in water borne oil technology combining refined plant oils and an enhanced fungicidal package for superior exterior performance. Supplied as a clear base that can be tinted to a range of designer colours.

# Key Benefits

- Penetrating erosion coating – **will not flake or peel**
- Improved durability and weathering performance*
- Clear base can be tinted to a wide range of colours
- Improved colour consistency on coated timber*
- Fast drying for improved in-factory throughput*
- Ultra-low VOC (<15 g/L)
- 97% renewable or recyclable ingredients
- Suitable for **exterior and interior** use

* Compared with Abodo Protector Waterborne (previous generation) in external and internal testing

New Growth Feature Timbers

ABODO


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

# Product specifications

| | |
|---|---|
| **Product type** | Waterborne penetrating erosion stain. |
| **Field of application** | Exterior - cladding, soffits, screening, pergola, decking (Protector clear only).<br>Interior - ceiling and wall panelling. |
| **Substrates** | Most softwood and hardwood species. Modified timbers such as thermally modified.<br>We cannot verify compatibility with every timber type - testing prior to use is recommended. |
| **Ingredients** | Water, vegetable oil, long oil alkyd resin, cobalt & zinc & lead-free driers, mildewcide, mineral pigments. |
| **Renewable content** | >97%. |
| **Pack sizes** | 1L, 10L Plastic Pails, 200L Steel drums. |
| **VOC content** | <15g/L. |
| **Flash point** | >100°C. |
| **Specific Gravity** | 1.03 |
| **pH** | 7-9 |
| **Gloss level** | Matt/ Low Sheen. |
| **Thinner** | Do not thin. |
| **Shelf life** | Approx 3 years (unopened, correctly stored). |
| **Recoat time*** | Minimum 4 hours. |
| **Pack down time*** | Minimum 8 hours. |
| **Full cure*** | Up to 7 days.<br>*Recoat and cure times are stated at 25°C and 50% relative humidity; these may vary under different conditions. Dry times may be accelerated by force drying on the second coat only. |
| **Colours** | Clear base- may be tinted to standard Abodo colours with Protector Colour tint packs, or via tint machine using Protector colourants.<br>Clear offers no UV protection so timber will go grey in exposed exterior applications. |
| **Tinting system** | Protector Colourants |
| **Application methods** | Speed Brush (preferred hand application method)<br>Brush, Roller, Flood, Spray (airless), Vacuum |
| **Clean up** | Water. Soap may be used to assist cleaning of brushes. |
| **Light Reflective Values (LRV)** | LRV cannot be determined for semi-transparent coatings, as the colour of the timber coated and the number of coats applied impacts measured LRV. See Abodo SRI and LRV Guide for more information. |
| **Living Building Challenge** | Red List Free. |
| **EU REACH** | Raw material ingredients are not subject to restrictions under the SVHC (Substances of Very High Concern REACH, annex XVII)) list under the European Union REACH regulation (1907/2006) limit value for chemical content. |





© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26

info@abodo.co.nz
abodo.co.nz

## Theoretical coverage rates

| Timber type | First coat (m²/L) | Second coat (m²/L) |
|---|---|---|
| Restored sawn face timber and shingles | 6-8 | 8–10 |
| New sawn face timber and restored dressed face timber | 8-10 | 10–12 |
| New softwoods smooth dressed, sanded | 10-12 | 12–14 |
| New hardwoods smooth dressed, sanded | 12-14 | 14–16 |

Coverage rates may vary due to seasonal temperature, timber porosity, moisture content, timber type and previous coats applied.

If applying a second coat or a maintenance recoat, the coverage rate will also vary based on timber exposure (covered areas/uncovered areas) and time frame between coats or since the last maintenance recoat was applied.

As new modified exterior timber and restored timber is often dryer than other timbers, the lower moisture level creates more space within the timber for the coating to migrate into, thereby requiring more product.

# Colours

Protector 2 is supplied as a **Clear base**.

Colour is achieved by adding Abodo® Protector® Colour Tint Packs or by factory tinting.

## Important Colour Notes

- Clear provides **no UV protection** and will weather to silver-grey.
- Pigmented colours are not recommended for decking - clear only.
- Always trial colours on an off-cut before full application.
- Printed and digital colour references are indicative only.
- Timber species, natural variation, UV exposure, and coating rate will affect final colour.
- When timber is new, including thermally modified timber, it often has a dark appearance. This means the colour you select may not show as expected until the wood has weathered for up to six months. As the timber lightens from exposure to sunlight's UV rays, the stain colour will gradually become more prominent.
- Refer to the Watch Me Weather videos on the Abodo website. These will give you an indication of how the colours weather.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

# Standard Colour Range

Protector coated on Abodo Vulcan thermally modified timber with band sawn face

Nero

Ebony

Graphite

Walnut

Teak

Straw

Natural

Patina

White

Clear (non-tinted)

Colours are indicative only and may fade, change or lighten with exposure to the weather.



© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26

info@abodo.co.nz
abodo.co.nz

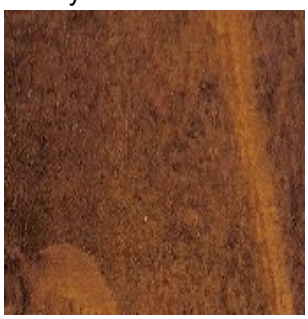
Protector coated on pine with band sawn face

Nero

Ebony

Graphite

Walnut


Teak

Straw

Natural

Patina

White

Colours are indicative only and may fade, change or lighten with exposure to the weather.

# Product Finish

- When applied, this product may initially wet and darken the timber surface.
- If too much product is applied, it will remain wet or glossy on the timber surface, as there is no space for the coating to migrate.
- After application, the timber in uncovered areas (exposed environments) will weather naturally and lighten or silver over time, and timber in covered areas will retain its natural colour for longer.
- Protector is an erosion type coating. This means it is designed to crumble away from the surface with long term exposure to weather thereby avoiding flaking that can be costly to maintain.
- If a uniform silvered look on cladding is desired, we recommend using a grey tone such as Patina under eaves and doorways.





© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26

info@abodo.co.nz
abodo.co.nz

# Product handling

- Store with lid tightly closed in a cool place out of sunlight, with ambient temperature min 10°C and max 30°C. Limit temperature variation to no more than 10°C in a 24-hour period.
- Use product within 1 month of opening the container.
- Keep out of reach of children.
- Use in a well-ventilated area. If swallowed, seek medical advice. Avoid breathing mist, vapours, or spray. Do not eat, drink or smoke when using this product.
- Keep out of drains and waterways.
- Rainwater in contact with the coated timber is not suitable for drinking water.
- See product Safety Data Sheet for complete safety information.

# Timber Handling

- When receiving timber to site ensure it is well stacked on a level surface with bearers spaced at minimum 1500mm centres and minimum 100mm off the ground prior to installation.
- Keep the timber dry and fully protected from rain and site contaminants such as dust, dirt, grime and metal filings.
- Extreme care must be taken not to contaminate or damage the timber surface when handling.
- Use of cotton gloves during handling and installation is recommended.

# Personal Protection

- When applying this product, it is recommended to wear personal protective equipment, such as gloves, eye protection.
- After applying the product, wash skin using detergent and hot soapy water.
- When machining or sanding timber always wear a dust mask.
- See product Safety Data Sheet for complete safety information.

# Surface Preparation

In all cases ensure timber surfaces are clean dry and free from saw dust or metal filings before coating.

## New smooth dressed timber

- Must be thoroughly sanded along the grain of the timber to remove mill glaze with up to 180 grit sandpaper for exterior timber or 220 grit for interior timber prior to application of coating.
- Do not sand in small, isolated areas or over-sand, always evenly sand the full length of the timber, sanding imperfections may show through the coating.
- Uneven or spot sanding will result in uneven penetration of the coating.

## Band sawn timber

- Turn timber on edge to ensure loose fibres fall away, ensure timber surfaces are clean, dry and free from saw dust or metal filings before coating.





© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26

info@abodo.co.nz
abodo.co.nz

## Old weathered timber

- If timber has been exposed to the weather, clean the timber surface as per Heavy Wash in Maintenance section.
- Rinse thoroughly with low pressure water and leave to dry.

## Previously coated timber

- Before coating strip back any existing stain or other film forming coating to bare timber and carry out a wash with a timber cleaner.
- Protector 2 cannot be applied over film forming coatings or paints. In this case the original coating must be stripped back to expose raw timber before application.
- It is possible in some cases that Protector 2 may be applied over other penetrating oil finishes including Protector Water Borne, provided that the coating is able to penetrate the wood surface. Preparation with a timber cleaner in accordance with light wash in the maintenance section of this document must be made prior to application.
- Always make a small test prior to full application.

## Over-coating Protector

- Protector 2 in many cases may be overcoated with paints and stains.
- If over-coating, check with coating manufacturer prior to commencing work for surface preparation and coating recommendations.
- Always make a small test prior to full application.

## New hardwood, or timber with high-tannin content-

- It is recommended to seal the back (non-exposed) face then allow weathering of uncoated (exposed) faces of timber for 3-6 weeks prior to coating. Clean timber in accordance with Light Wash in the Maintenance section of this document, followed by application of two coats of Protector 2 front faces and edges. Any coating work should be made in consultation with the timber manufacturer's recommendations.

## Filling of timber should be avoided

- Secret fix where possible or allow for exposed fixing head.

## Avoid coating over glue

- If glue is wiped across surface of the timber, it will show underneath the coating.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

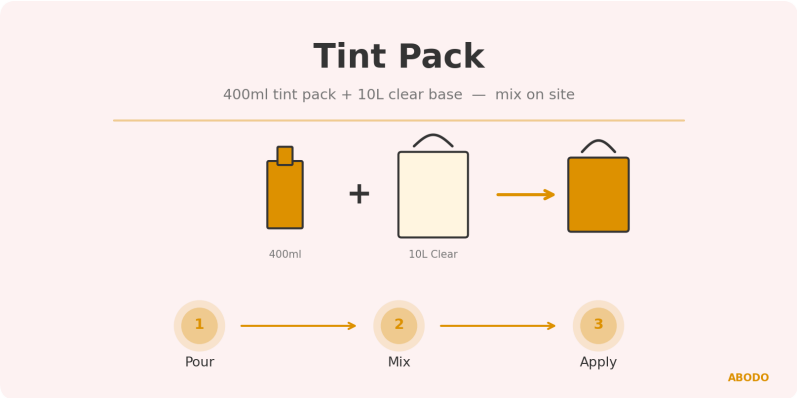
# Protector Colour tinting

## General

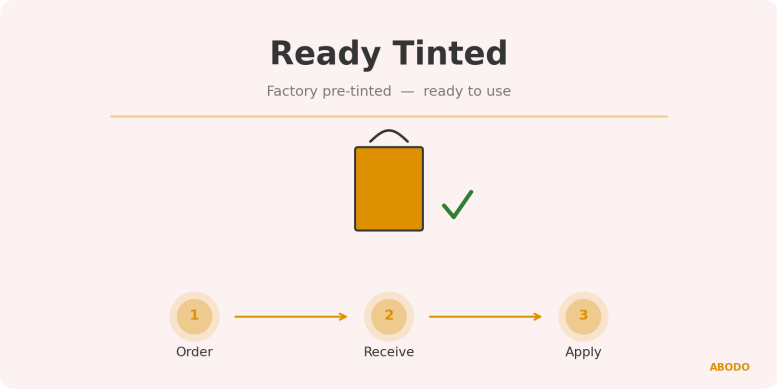
- Protector 2 coating is supplied as a Clear base.
- Tinters (pigments) can be added to achieve your preferred shade.
- Tinters provide timber colour and some UV protection, as the Clear base alone offers minimal UV defence.

Options for adding colour:

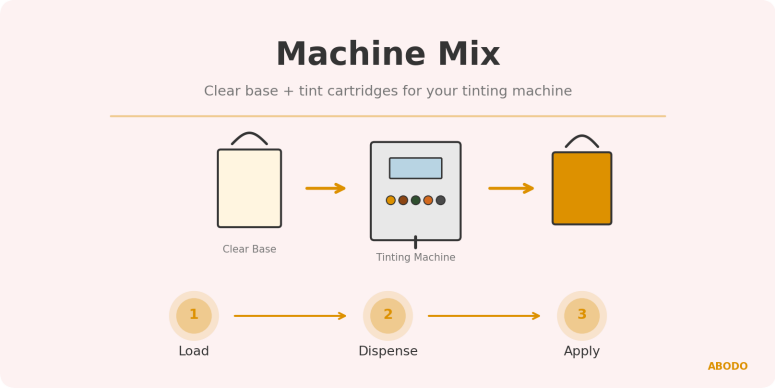
- **Tint Pack** — Clear base and Protector Colour Tint Pack — just pour it in and stir.




- **Ready Tinted** — Product is supplied factory pre-tinted in the chosen colour. (Availability may vary between markets please check availability with your local supplier).




- **Machine Mix** — Colourants can be supplied for use in industrial tint machines. Recipes are provided to achieve standard Protector colours. Suitable for professionals / distributors who have their own tinting equipment.





© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

New Growth Feature Timbers
ABODO

# Protector Colour Tint Packs,

Protector Colour tint pack configurations:

| | |
|---|---|
| **Tint pack size** | 400ml |
| **Pail size** | for 10L |

- Each tint pack contains the correct amount for use.
- It is important to ensure that you have the correct colour tint pack before adding it to your Clear base.
- In addition, before applying the stain to the entire area, trial coat an off-cut of timber to ensure the desired colour is correct and compatible.
- Abodo or its agent cannot accept responsibility, for the mixing or application of incorrect colours by the user.

# Protector Colour mixing method

- Only add one Protector Colour tint pack to each Clear base container.
- **Shake the tint pack** vigorously for at least 2 minutes to ensure the tinters are well mixed, since they may have settled during storage.
- Pour **half of the tint pack** into the Protector 2 Clear base and immediately mix the tint by shaking or stirring thoroughly so the colour blends evenly with the base.
- Secure the lid on the tint pack, shake again, and then pour the rest of the tinter into the pail. If any tint remains in the pack, add a small amount of base product, shake forcefully, and transfer it back to the main mixture. This ensures you achieve the correct concentration of tinters in the pail.
- After adding tinter to the Clear base, thoroughly **shake and stir for at least 2 minutes** immediately.
- When using more than one pail, combine their contents to guarantee consistent colour throughout.
- Continue to shake and stir before and every 15 minutes during use to maintain an even distribution of pigments and achieve a uniform finish.

Note: When timber is new, including thermally modified timber, it often has a dark appearance. This means the colour you select may not show as expected until the wood has weathered for up to six months. As the timber lightens from exposure to sunlight's UV rays, the stain colour will gradually become more prominent.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

# Application Conditions

- DO NOT apply coating to timber where the moisture content is above 16%.
- Target air temperature 15–25°C and <75% humidity. Colder temperatures <15°C may cause the coating to become more viscous limiting the ability to penetrate and causing glossiness on the surface.
- Storing the coating in a warm environment (20–25°C) prior to use will assist with application.
- Do not apply in direct sunlight and take care under warm/hot conditions. Do not apply when temperatures are less than 10°C.
- Ideally pre-coat the timber in an enclosed environment with adequate lighting and ventilation.
- If timber is located outside, make sure the weather will remain without rain for at least 48 hours, to allow the coating to dry. If coating the timber in an exposed environment, we recommend not coating during winter months with freezing temperatures.
- On-site coated timber must be racked or laid out in a clean well-ventilated location at 15–25°C and <75% relative humidity to dry in an area free from sub-trade contamination. Longer dry times may be required in colder conditions.
- Timbers must be protected from all environmental conditions while not fixed.

# Application Methods

| Application Method | Recommendation |
|---|---|
| Speed brush | Preferred hand application method.<br>Fine bristled speed brush recommended (not lambskin or long pile speed brush). |
| Brush | Wide good quality bristle brush recommended. |
| Roller | Medium nap roller recommended. |
| Spray equipment | Airless spray equipment recommended. |
| Vacuum line | Adjust to required application rates. |
| Flood brush line | Adjust to required application rates. |
| Spray line | Adjust line settings to achieve required application rates. |

# Product Application

## General

- Check all products supplied prior to starting against specification documents and colour samples.
- Must be used as supplied. Never add thinners, water or alter it in any way.
- Must be thoroughly shaken and stirred prior to use and then stirred regularly during application approximately every 15 minutes (with or without Protector Colour added) to ensure a consistent product and colour is applied. Colour tints will settle out from the Protector 2 Clear base if it is not stirred regularly.
- For jobs that require more than one container of the same colour, box all containers together to ensure a consistent colour is achieved.
- Always apply the coating at the correct coverage rate. The application rate will depend on the actual timber being coated and the ability of the timber to absorb the stain.
- Coat the board's full length linearly (do not stop mid-section) and complete individual areas at one time using good coating practices to avoid lap marks.
- The first coat may look patchy or uneven due to differential penetration into the timber surface. The second coat will result in a more even colour.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

- When completed, the entire area should be uniform in look and colour and free from coating defects.
- Once dry, Protector should have a matt/ low sheen finish. If glossy patches have developed, this is an indication of over-application of the product (Not adjusting application to match the timber's ability to absorb stain).
- Depth of colour can be altered by application rate or by shortening or lengthening Protector dwell time on the substrate surface before removing the excess stain.
- Seal exposed timber end grains in exterior applications with Abodo End Seal or equivalent end grain sealer making sure not to apply product to the face of boards.

## Application precautions

- Will not penetrate existing coatings or hard late wood bands. For best results wipe off excess stain with a dry absorbent lint free cloth rubbing along the grain.
- Hardwoods or tight grain timbers will absorb less product so may require lower application rate/additional wiping back.
- This is a penetrating stain, unevenness in the timber grain, surface preparation and or application will result in differential appearance. Apply evenly and do not allow overlapping areas to dry during application.

## First coat factory-applied

Machine application of at least the first coat in a factory-controlled environment is recommended to ensure the best quality finish. Seal all sides of timber for exterior applications.

## Hand application

1. Apply two thin even coats minimum of 4 hours apart. In colder temperatures (10–15°C) allow minimum 6 hours or longer between coats. Make sure boards are coated in one pass along the board length to avoid lap marks. One coat only is required when rejuvenating existing oiled timber.
2. Lay back surface evenly with a dry lint free cloth or speed brush to remove excess oil prior to drying. The coating should sit into the surface of the timber, not on top.
3. For exterior applications, if accessible, apply one liberal coat to rear surfaces of timber to facilitate all round protection.
4. Seal exposed cut ends with Abodo End Seal or equivalent end grain sealer, making sure not to apply product to the face of boards.

Final cure time will vary according to weather conditions, though may be up to 1 week. In colder conditions dry times will be slower.

## Machine application

This information is for guidance only- adjustment to suit your particular equipment may be necessary.

1. Airless spray equipment - suggest tip size 0.011-0.013 inch (11 thou – 13 thou). Vacuum or flood-brush coating may also be used, though extra care is required on adjustment to achieve application rates.
2. Ensure product is filtered before use and coating temperature minimum 20°C.
3. For automatic infeed, use line speed of approximately 40-60 LM/minute


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

4. Thinning is not generally recommended however it is possible if absolutely required with water up to a maximum of 5% by volume.

5. Ensure coating is applied sparingly so it sits into the timber after drying (not on top). If required adjust machine settings to reduce volume of coating going onto timber.
6. Addition of a coarse bristle brush on the outfeed is recommended to dissipate surface tension and give smoother pigment build, especially on smooth dressed timber.
7. Rack dry for at least 4 hours between coats.
8. Allow minimum 12 hours drying time before placing timber into block stack.
9. Force drying may be possible, though is recommended on the final coat only. This allows the first coat to adequately penetrate the surface of the timber.
10. Apply foam slip sheets between faces to avoid rubbing marks.

## Interior coating

- Internally, Protector 2 can be applied in its clear form or tinted with Protector Colour tint.
- For most interior timbers that are not exposed to abrasion such as ceilings, sarking, and beams, one initial coat may be applied. If the desired colour is achieved in one coat, no second coat is required. However, if the desired depth of colour is not met, a second coat can be applied.
- Where sarking or soffit lining extends from inside to outside, and one colour coat is the desired look, exterior sarking or soffit lining must be overcoated with Protector 2 Clear for greater protection. Bear in mind that UV protection will be less with one coat, so lightening of the timber over time may be more pronounced.
- Never apply more than two coats.
- Interior timbers at times may be fixed uncoated depending on the area of usage and design.
- For design features such as ceiling or soffit prone to damp or cold air flows, the timber must be envelope sealed with Protector 2 and all timber cut ends coated prior to installation.

### Wet Areas

- In wet areas such as bathrooms and laundries, must be overcoated with a ‘clear’ solvent borne polyurethane.

### Hard-wearing areas

- For greater protection and cleanability on hard-wearing areas may be overcoated with a ‘clear’ polyurethane or acrylic.

Note: Traditionally oil-based polyurethanes will provide better in-service durability for additional protection. Clear top coating can darken the colour of the timber giving a wet look.

Always check compatibility of the chosen clear topcoat and make a small trial prior to application.

# Completion and Clean-up

## Clean Up

For over-spray or accidental spillage on unwanted surfaces such as windows; use a wet wiping rag with small amount of white spirits on smooth surfaces and a brush on rough surfaces.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

- **Remove** drop sheets, coverings, and masking to leave surrounding surfaces and areas clean, tidy, and undamaged. Remove unused materials and elements like residue product, application equipment, and cleaners from the site. Dispose of all materials safely.
- **Protect** new work from damage. Take all relevant precautions to protect timbers from site work, dust, dirt, aggregate concrete wash, concrete cutting, metal grinding, water blasting, paint splatter, etc

# Maintenance

## Exterior Maintenance

- A maintenance assessment of the timber should be made every summer (decking) or every two summers (cladding) and touch up coats applied as appropriate to maintain colour and water repellence. The re-coat period will vary according to aspect of the timber to the weather and climatic conditions.

- As a guide, a further coat should be applied approximately every 12 months for decking or every 2-4 years for cladding, this period may be less in areas under full exposure to heavy weathering.

- Expect tracking marks to appear on pigmented coatings applied to horizontal surface such as decking, in areas of heavy traffic.

- High pressure water blasting is not recommended as can damage the surface of the timber. Soft pressure washing is allowed provided a soft even fan-shaped water jet is used.

### Regular wash

- Wash timber down regularly (minimum every 6-12 months) with detergent and a soft brush, then rinse with water at low pressure to remove built up dirt, dust and any other environmental pollution that may have adhered to the surface.

### Light wash

- Prior to coating or for areas with discolouration, light mould or dirt: scrub down with a timber cleaner such as Abodo Rejuvenator or similar using a stiff bristle brush followed by rinse down with low pressure water. Leave to dry completely before application of Protector 2.

### Heavy wash

- For more difficult to clean areas with heavy mould or lichen growth: first wash down with a sodium hypochlorite-based cleaner, rinse thoroughly with water.
- While still wet, scrub down with Abodo Rejuvenator or similar oxalic cleaner using a stiff bristle brush. Be careful not to scrub too hard or leave the cleaning solution too long, as this may damage the surface of the timber. Rinse with water.
- Leave to dry completely before application of Protector 2.
- In areas of high recurring mould growth, spraying of a slow-acting mouldicide onto the coated timber surface may be considered.

## Interior Maintenance

- Clean with a soft wet cloth.
- Touch up coating as required.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz

# First Aid

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Call a Poison Centre, doctor or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice or attention. IF ON SKIN (or hair): Wash with plenty of soap and water. If skin irritation or rash occurs get medical advice or attention. Wash contaminated clothing before reuse. IF INHALED: Move to fresh air. If breathing is difficult get medical attention immediately. If exposed or concerned, seek medical advice. When seeking medical advice take this container with you.

Refer to Safety Data Sheet for full health and safety information.

# Disposal

Do not crumple soaked rags (otherwise spontaneous combustion may occur). Do not pour down the drain. Dispose of at an appropriate waste disposal facility in accordance with local authority bylaws. Do not pour oil residue into the sewer. Let the remnants dry out and dispose of with your domestic rubbish collection.

# Packaging

1 L plastic pails

- 4 units per box
- 80 boxes per pallet (16 per layer,5 high) = 320 units
- Full pallet dimensions 1.15mL x 1.15mW x 0.9mH
- Pallet Weight: 385 kg

10 L plastic pails

- 16 pails per layer at 3 high = 48 units
- Full pallet dimensions 1.15mL x 1.15mW x 0.98mH
- Pallet Weight: 553 kg

Packed onto timber pallets.
All export pallets heat treated according to ISPM15-certificate.

This document is not exhaustive and represents information available to the best of our knowledge at publication date based on laboratory tests and practical experiences. Abodo accepts no liability for the use of this document in full or part including accuracy or completeness of the information presented or for results obtained under working conditions beyond our control. The buyer is not released from the obligation to test the suitability of the products and application methods under actual application conditions. Our liability covers only damage caused directly by defects in the products supplied by Abodo. The latest versions of Abodo's Technical Data Sheets and Safety Data Sheets are available from our homepage www.abodo.co.nz.

All trademarks displayed on this document are the exclusive property of Abodo Wood or its affiliated companies.


© Adodo Wood Ltd | TDS Technical Data Sheet No. 83 Version Aug 26
info@abodo.co.nz
abodo.co.nz