



# TDS

## TECHNICAL DATA SHEET

# WOOD PROTECTIVE TREATMENT



### DESCRIPTION

A ready to use, blend of oils and resins that add water repellence to wood, helping to reduce swelling or twisting. Inclusion of a dry film biocide also reduces the growth of surface mould / algae. Available in clear and a range of colours.

### PRODUCT INFO

The product is based on low-odour oils / spirits, penetrating deep into the wood and providing a low build but microporous finish. This means that the surface can breathe, letting water vapour escape and reducing the chance of flaking or cracking. Both the Clear and Colour versions are mostly transparent and give a matt to satin finish, allowing the natural grain texture to show. The Colours also contain UV fade resistant pigments that provide some protection to the wood from damaging sunlight.

The final depth of colour and finish will depend upon wood smoothness, absorption characteristics and the number of coats applied. Once fully dry, Barrettine Protective Treatment is odourless and friendly to beneficial insects.

### APPLICATION AND COVERAGE

Ideal for use on outdoor structures such as Sheds, Fences, Trellis, Pergola and Gazebos etc, as these are typically built from rough-cut softwoods and have good absorbance characteristics. If used on smooth planed timber, the drying time may be extended and the colour will not appear as strong.

If used on Wooden Garden furniture, make sure the stain has fully dried/cured and colour does not transfer before use. The results and timing can vary due to atmospheric weather conditions and wood type. Natural oily/resinous woods and tight grain hardwoods can take longer to dry and completely cure. To be sure there is no risk of colour transfer from the treated wood/furniture onto clothing, run a white lint free cloth over the surface and inspect for any colour rub off. If colour transfer occurs, the treated article may require a longer drying time. Due to the nature of certain resinous woods, in some cases a sealer/top coat may be necessary. Always carry out a test area before use.

Not suitable for use on decking, as the rub resistance is not sufficient for foot traffic. However, Barrettine All-In-One Decking Oil can be used over wood previously treated with Barrettine Wood Protective Treatment, for use on decking.

To colour decking with a single product, Barrettine All-in-One Decking Oil would be recommended.

### STORAGE

Store between 5-30°C, out of direct sunlight and protect from frost. Once opened, close lid tightly between uses. If stored correctly, shelf life will be two years from date of manufacture.

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## PREPARATION

Before use, test a small inconspicuous area with all products to be used, to ensure a satisfactory final finish and compatibility.

### Test compatibility with or remove previous coatings

Wood Protective Treatment is compatible over wood previously coated with certain other Barrettine products, such as Wood Preserver, Decking Oil or Log Cabin Treatment. It may be suitable for application over other transparent wood treatments but this cannot be guaranteed and should be confirmed with a test patch.

Some low-build opaque shed and fence treatments such as Barrettine Shed & Fence Treatment can be overcoated providing a similar colour is used, as the original colour is likely to show through. A test patch is essential to ensure the final result is satisfactory.

Barrettine Wood Protective Treatment is not suitable for use over opaque paints or varnishes which have built onto the surface, as these will prevent the product from absorbing into the wood. These must be removed either by sanding, heat gun or paint stripping. If choosing to use paint stripper, either Barrettine Paint Panther or Peelaway may be suitable. Weathered timber can be treated with Barrettine Wood Reviver, which will restore greyed/silvered wood to its natural colour and remove visible surface mould from damaged wood.

The colour swatches on the containers and product web sites are an indication only and representative of the product applied to clean new/pale timber. The final colour finish can vary considerably due to the age, type & condition of the timber being treated.

### Allow wood to acclimatise in situ

Fresh wood should be acclimatised in situ before coating, for up to 6 weeks. It is important that wood can settle to its environment, to avoid future warping or cracking. This is especially important outdoors, especially for hardwoods such as teak, oak and iroko, due to their high tannin and resin contents. The weathering off period will open the grain and rinse away surface tannins, preventing them from interfering with the coating. Failure to allow weathering off can lead to discolouration or patchiness, as surface tannins can leach unevenly when humidity is high. The higher the resin/tannin content, the longer the weathering off period required. Ask the wood vendor for specific advice.

### Remove any resinous deposits

Remove resinous deposits with a scraper. Highly resinous woods such as cedar and hardwoods will be expected to have reduced absorption – wiping with white spirit or methylated spirit before coating can improve this. Knots will have a higher resin content so pay particular attention to these, to avoid an uneven appearance.

### Fill any cracks or gaps as necessary, using a suitable wood filler

Test compatibility with Wood Protective Treatment on a scrap of wood before use. Fillers which use sanding dust from the wood itself will achieve the closest colour match. Wax fillers are not compatible as they will not allow the product to absorb.

### Treat with Barrettine Mould and Mildew Cleaner (external wood only)

Before application, any dust or dirt should be removed by brushing. Exterior wood should then be washed with Barrettine Mould and Mildew to kill any mould spores which may be present on the surface, preventing them from germinating in future. Scrubbing with a stiff bristled brush (non-metallic) whilst wet will help remove dirt and any killed growths. This should be permitted to dry for a minimum of 24 hours.

### Treat with Barrettine Universal Preserver (external wood only)

For external wood which is not pressure treated, it is necessary to treat with Barrettine Universal Preserver before using Wood Protective Treatment. This contains biocides to protect against wet rot, decay and wood boring insects. If using pressure treated wood, ensure that any cut ends or drill holes are treated with Barrettine Cut End Preserver.

## HEALTH & SAFETY

Wear appropriate personal protective equipment (PPE) such as chemical resistant gloves, overalls and eye/face protection to protect against splashes. If in doubt speak, to your PPE supplier and show them the product label/Safety Data Sheet or call us for further advice.

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## APPLICATION

Shake/stir well before and during application to maintain colour uniformity. Ensure good ventilation during use, e.g. open doors and windows or apply outside.

The moisture content of the wood should not be above 20% (external). This can be checked using a handheld moisture meter. The temperature during application and drying must be between 5-30°C, with no rain forecast within 24 hours (ideally 48) when using externally. The relative humidity must be below 80%, ideally below 60%. If heavy rain has occurred recently, wait a minimum of 2 days for wood to thoroughly dry throughout. Application during damp conditions will impact drying and may lead to a milky/hazy appearance as moisture becomes trapped in the finish.

### Application by Brush

Decant the Wood Protective Treatment into a paint kettle or suitable container and apply using a high-quality brush, ensuring that any end grain, joints, or drilled areas are thoroughly treated as these areas are more absorbent. The final pass with the brush should be in the direction of the wood grain, particularly on smoother wood.

### Application by Roller

Compatible with the ArmourFlex Velour Roller, when applying to smooth wood. Rough or very absorbent wood will be slow to coat using this method. Apply an even layer, taking care not to apply too much pressure. The final pass with the roller should be in the direction of the wood grain.

### Application by Spray

Can be sprayed using an airless sprayer such as a Wagner or Graco ideally using a minimum 1mm flat fan tip nozzle (9 – 11 thou tip).

Take care not to contaminate the surrounding area. It is advisable to dismantle fences and structures for spraying, in order to spray on a tarpaulin or within a spray booth. This will contain any overspray for re-use or disposal via your local authority. Do not apply by spray on a windy day. The sprayer must be thoroughly cleaned after application with white spirit and then oiled to protect the tip and moving parts (as per manufacturer's instructions).

This product cannot be sprayed with a traditional pump action garden sprayer.

### Application by Dipping

For Trade or Industrial users with suitable facilities the product can be used as a dipping treatment, allowing 3 minutes in the dipping tank. Components treated by this method should be allowed to stand in an area where any excess product can safely be drained and collected. When not in use, the product should be drained from the dipping tank or tightly sealed from the air.

### After Application

The first coat on bare/weathered wood will absorb far more product than subsequent coats. Once sufficient product has been applied that it no longer absorbs into the wood, further coats should not be applied. The product is not intended to build on the surface.

Protect from rain/frost until dry, to avoid damp becoming trapped within the finish. Product is touch dry after approximately 8 hours or less, depending on wood roughness but will require a minimum of 48 hours to develop maximum water repellence.

### Clean-up and Spills

Clean brushes with Barrettine White Spirit. Mop up any spills immediately with an absorbent cloth, then wipe with White Spirit. Dried spills will require Barrettine Paint Panther or Peelaway 7 to remove, providing the surface below is compatible.

Product contains drying oils which could, under certain conditions, spontaneously combust. Saturate used cloths with soapy water immediately after use and lay flat outside to dry. Do not leave to dry in bundles, or on combustible surfaces.

## COVERAGE

Approximately 6 m<sup>2</sup>/L, depending on wood porosity.

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## AFTERCARE & MAINTENANCE

Keep the surface clean using a damp cloth and mild detergent, such as Barrettine Oil and Grease Remover or Driveway, Decking and Patio cleaner. Cleaners should always be rinsed/wiped away with water after use to avoid leaving residue on the surface. Use of harsh chemical cleaners, repeated use of alcohols or harsh physical methods such as jet washing or steam cleaning are not recommended.

Recoat as and when required, on the first sign of weathering. This will depend on the location of the wood, with external wood in a sunny, exposed, south facing location expected to require far more frequent re-treatment than internal structures. Exterior wood is likely to need at least one fresh coat each year due to weathering.

If localised damage occurs such as scratches, patch repairs are possible. The affected area should be lightly abraded with fine wire wool/sandpaper to provide a key, then a thin coat applied as usual.

## FIRST AID

### Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

### Most important symptoms and effects, both acute and delayed

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : Risk of lung oedema.

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## FAQS

### 1. The film has dried with a milky film, why? How can I remove this?

a. This indicates that there is moisture trapped within the film. The most likely cause is application to damp wood, or that the temperature has dropped overnight, causing condensation to form within the wood. To remove the haze, the top layer will need to be lightly sanded back, wiped with White Spirit and then thinly re-coated under optimum conditions.

### 2. The Barrettine Wood Protective Treatment has been drying for over 8 hours and is still tacky, how do I fix this?

a. It may be that the conditions are not optimal for drying, so it is delayed. This can be expected when the humidity is high, or ambient temperature is low. In this case, it is worth waiting a further 24 hours to see if the surface will dry fully.

However, a tacky surface also occurs when the Barrettine Wood Protective Treatment has been applied too thickly. It dries by curing with air but once the top layer cures, it prevents the air from reaching the layers below. Consequently, applying too much in a single application will prevent full hardness from developing. In the worst case, the film will remain squishy.

To remedy this, severe excess should be removed with a scraper or wire wool soaked in white spirit. The surface should then be wiped down with white spirit and allowed to dry for 24 hours. Following this, the surface should be lightly sanded and a final thin coat reapplied as normal.

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**3. It rained before the Barrettine Wood Protective Treatment was fully dry and has left watermarks. How do I remove them?**

a. Initially, try wiping with white spirit. If this does not work, then lightly sand the surface or rub back with wire wool and apply another thin coat.

**4. There is a patchy finish after I've used the Barrettine Wood Protective Treatment. What has caused this?**

a. This could be caused by a number of things, but the most likely reasons are a) insufficient mixing before use b) uneven removal of previous coatings or c) uneven weathering of the wood below.

In case of a) the surface should be lightly sanded back and the tin shaken thoroughly, then a thin coat re-applied. However, in the case of b) and c), a more thorough sanding may be required, to remove all previous coatings and weathered wood. In the case of c), Barrettine Wood Reviver could also be used to restore the weathered wood to its original colour.

**5. I treated new wood with Barrettine Wood Protective Treatment last year but it has faded to a silver/grey colour. How can I avoid this?**

a. Barrettine Wood Protective Treatment is not designed to prevent the wood from greying naturally in the sunlight. For this, a product which contains UV stabilisers would be required, to absorb the sun's UV rays. ArmourFlex UV Protection Oil would be our best recommendation for this.

**6. Surface mould has appeared on the wood. How can I remove this?**

a. Black mould is not actually harmful to the wood but can be unsightly. To remove it, gently scrub the surface with Barrettine Mould and Mildew Cleaner, in the direction of the wood grain, using a soft bristled brush. The likelihood of mould spores germinating on the surface can be reduced by pre-washing the wood with Mould and Mildew Cleaner, before coating. Although the product contains a surface biocide, if the level of mould spores is too high, such as in repeatedly damp conditions, then this will be overwhelmed.

**7. I coated my table with Barrettine Wood Protective Treatment and it dried brilliantly, but has since become tacky. Why?**

a. This can occur if harsh chemical cleaners such as those containing alcohol are used, or surfactants which have not been diluted sufficiently. The solution would be to lightly sand back and re-apply a fresh coat.

**8. How do I know if the moisture content of the wood is below 20%?**

a. In general, wood which has been stored outside, in dry conditions would be expected to be around 20% moisture. However, a handheld moisture metre can be used to confirm the moisture level, without damage to the wood. These are relatively inexpensive to purchase.

**9. Does this product 'feed' the wood?**

a. This phrase suggests that wood used for furniture, joinery etc. is still alive, which it is not. What people usually mean by this phrase is whether the product reaches deep into the wood fibres and coats them, rather than forming a barrier on the surface. In this case, yes, Barrettine Wood Protective Treatment does 'feed' the wood.

**10. I have used the product on new/freshly sanded back oak and black marks have appeared, what are they and how can I remove them?**

a. The tannins in oak can react and turn black, particularly when in contact with iron (sometimes from steel wool) or water. On new/freshly sanded oak, there can be a high concentration of tannins at the surface, which then cause discolouration over time. However, these tannins are soluble so if the appropriate weathering off period is allowed, they will be removed from the surface before the Barrettine Wood Protective Treatment is applied. If black staining does occur, they can be removed either by sanding or by using Barrettine Wood Reviver.

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11. Why is it important to use a good quality brush? What properties should I be looking for?

a. A good quality brush will not shed bristles into the coating and will hold the product well, without it dripping too quickly. For a solvent-based product like Barrettine Wood Protective Treatment, natural bristle fibres work well.

TECHNICAL DATA

PROPERTY	VALUE
SG	0.800 KG/L
Viscosity	4 cPs
Odour	Hydrocarbon
Flash Point	>41 °C
Appearance	Free flowing low viscosity liquid, no particles, translucent. Colour varies across range, Clear product is pale amber in liquid form.

SAFETY



**Danger**

Contains : Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

- Flammable liquid and vapour.
- May be fatal if swallowed and enters airways.
- May cause drowsiness or dizziness.
- Harmful to aquatic life with long lasting effects.
- Keep out of reach of children.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- No smoking.
- Avoid breathing fume, vapours, mist, spray.
- Use only outdoors or in a well-ventilated area.
- Wear eye protection, face protection, protective clothing, protective gloves.
- IF SWALLOWED: Immediately call a POISON CENTER, a doctor. Do NOT induce vomiting.
- Store locked up.
- Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Repeated exposure may cause skin dryness or cracking.