



LIQUID NAILS
VBS VAPOUR BARRIER
For Sealing Concrete Slabs

- SPECIAL NOTE** This material is hazardous according to criteria of NOHSC. Refer to Safety Directions and Warnings on Pack Labels and refer to Material Safety Data Sheet before using.
- DESCRIPTION** A highly cross-linked, pigmented, two-pack epoxy water vapour barrier system.
- USES**
- For sealing concrete floor slabs to reduce the amount of water vapour emanating from the concrete.
 - Water vapour from a concrete slab can affect wooden flooring overlays.
 - Application of a suitable moisture vapour barrier like VBS can reduce the chance of problems developing with wooden floors at a later stage.
- WHY USE VBS ?**
- Water vapour from concrete slabs can migrate into wooden flooring laid on top.
 - Excessive water vapour emissions can cause the wooden flooring to be dimensionally unstable resulting in undesirable changes to its appearance.
 - One coat of VBS at the recommended application rate on properly prepared concrete is normally sufficient to reduce the moisture transmission rate from a cured slab to less than 15g/m²/24hrs. (ASTM F1869-98)
- COLOUR** Resin - yellow; Hardener - blue ; Mixed colour – green
- FEATURES**
- Normally a one-coat system.
 - Colour coded components to aid proper mixing
 - Controlled opacity: - The dark green pigmented colour of the mixed product helps the applicator to gauge a consistent application rate by eye.
 - Rapid cure
 - Low odour
 - Very low water vapour transmission rate.
 - Excellent adhesion and application properties
 - Optimal properties for subsequent bonding with Selleys Liquid Nails DIRECT STICK Polyurethane Timber Flooring Adhesive
 - Separate pail and measure stick allows easy division of the large pack into quarters for smaller areas.
- COVERAGE RATE**
- One full pack is sufficient for 20m² per coat when used at 6m² per litre.
 - Two coats may be required in case of very porous concrete or very high moisture levels in the slab.

- MIXING RATIO**
- Normally the whole pack is mixed at once (see Mixing).
 - If proportioning is required for smaller areas, the separate special mixing pail, with the marked stirrer allows the pack to be accurately divided into a quarter mix. (See Mixing)
 - For other amounts mix 4 Parts of resin to 1 Part of Hardener by volume (or 4.42 parts to 1 by weight)

PACKAGING Resin – Metal can; Hardener – Metal can (Separate mixing pail – plastic)

NOTE BEFORE STARTING INSTALLATION **Selleys Liquid Nails VBS cures rapidly. Ensure that all your preparation is complete and the application area is clear and marked out before commencing mixing. (Keep VBS kits cool before mixing)**

- Product is supplied ready to mix and use.
- For application use a 5-6 mm mohair roller (or an applicator to minimise splatter) and cut in with a paint brush.

SURFACE PREPARATION

- All surfaces must be clean, dry and sound, free of voids, loose materials and contaminants (curing compounds, oil, grease, waxes, sealers, coatings, previous coatings or adhesives, etc).
- Complete removal of any contamination must be carried out where it is suspected or evident.
- Surface preparation may be achieved by diamond grinding, shot blasting, sand blasting, captive abrasive blast cleaning (Blastrac), or other suitable method. (Acid etching is not recommended as the concrete has to be neutralised and dried afterwards.)
- Best preparation is to diamond grind the surface of the slab, as it enables the removal of high spots as well as laitance.
- Surface shall be structurally sound and level. [Concrete slabs shall be in accordance with AS2870-1996 Residential Footings and Slabs Code.]
- Concrete surfaces shall have a finish equivalent to that obtained when using a steel trowel.
- VBS can be applied if the concrete surface is dry and the slab has stabilised. To be stable, new concrete should have been cured for at least 28 days or until the moisture content of the slab is less than 5.5%. – (See special notes on dampness below.)
- Concrete should be flat and level (Refer ASTM F710-98 for determining).

SPECIAL NOTES ON DAMPNESS

- If dampness is suspected in a concrete slab, check by securely taping a 1m x 1m square of heavy duty plastic onto the slab, and leaving it for 24 hours. Any visible dampness or discolouration of the slab under the patch on removal of the plastic is a warning sign.
- If the slab is below grade, and there is a possibility of the water table being high enough to pressurise the concrete, perimeter drains would need to be installed.

If the slab is still green and high in water-of-placement, then allow the excess water to migrate out by providing good ventilation or by using a dehumidifier until the surface is dry. (See quick reference guide below)

Quick reference guide for controlling moisture from concrete slabs :-

1. If the slab passes the 24 hour taped plastic sheet test, and the slab is older than 4 months, then test to show that moisture transmission is <15 g/m²/24hrs, **or apply one coat of LIQUID NAILS VBS VAPOUR BARRIER to specifications.**
 2. If the slab does not pass the 24 hour taped plastic test but is >60 days old, apply one coat of LIQUID NAILS VBS VAPOUR BARRIER and test that moisture transmission rate is <15 g/m², **or use 2 coats of LIQUID NAILS VBS VAPOUR BARRIER..**
- If no testing is possible, or the slab is <60 days, seek specific recommendation from SELLEYS.

APPLYING VBS EPOXY BARRIER

MIXING THE WHOLE KIT

(For 20m² areas)

- Each pack will cover approximately 20m² at the recommended application rate of 6m² per litre.
- Mark out approximately 20m² on floor.
- Pre-mix (or thoroughly shake) the hardener can before decanting.
- Add **ALL** of the **Blue** hardener component to the **Yellow** resin component in the 4 litre can. There is sufficient room to mix in the supplied container.
- Once blended the mix is a uniform green colour.
- Use a Jiffy mixing blade with a slow speed drill, or the stirrer supplied.
- Use the stirrer to scrape around the sides and the bottom of the resin can during mixing to make sure all of the resin is properly incorporated.
- Streaks of yellow or blue in the mix will demonstrate insufficient mixing.
- Mix for approximately two minutes.
- Once thoroughly mixed and streak free, **immediately** pour out the mixed product onto the floor over the area marked in such a way as to allow an easy consistent roll-out to give an even build.

Important Note

Do not leave the mix in the can while brushing and rolling out or else application time will be shortened. This is a fast curing product which will heat up in the can after mixing. By decanting the mix out onto the floor it is kept cool and allows a longer time to work it.

SPREADING / ROLLING

- Detail ("Cut-in") around edges and corners with a brush before completing the rollout phase.
- The colour of the mix has been formulated to give a visual indication of varying thickness – shallow areas will tend to give a "grin-through" effect.
- **Surface should be even, glossy and streak free.**
- If coating soaks away, or gives dull patches or if pinholes are visible, a second coat should be applied, once the first coat has cured.

MIXING LESS THAN A WHOLE KIT

One quarter mix.
For
5m² areas

- The kit supplied has provision to easily mix one quarter of kit quantities by means of the separate mixing pail and calibrated mixing stick. This mix will cover (5m² approx).
- Mark-out area on concrete floor where VBS coating is to be applied.
- **First thoroughly mix each part (Resin & Hardener) separately in its own can.**
- The mixing stick has yellow and blue markings on it.
- Place mixing stick in the one litre empty pail provided, pour (yellow) resin to the mix pail until it reaches the top of the yellow mark.
- Now add hardener to the top of the blue mark.

- Stir thoroughly until a uniform green colour with no streaks (see mixing notes above). **Wipe the mixing stick clean** with a cloth for later use and **immediately** decant the mix over the area and apply as above.
- Any VBS remaining in/on the mixing pail can be peeled off after curing so that the pail can be reused for mixing other quarter mixes.

CAUTION: The mixing stick is calibrated for the supplied 1L pry-off pail only. Do not use this method with another container or the ratio will be wrong.

Mixes different to one quarter

- Mixes less than a whole kit can be made on a volume or weight basis. **Always ensure that the resin and hardener components are thoroughly mixed in their own containers before decanting.**
- Accurately measure out 4 volumes of resin and add 1 volume of hardener and mix as described above.
- Alternatively scales accurate to 10g may be used to accurately “split” a pack. The weight ratio is 4.42 parts of resin to 1 part of hardener.

CONFIRM THAT THE COATING IS SATISFACTORY

- After coating floors with VBS they should still be confirmed as having a moisture transmission rate of less than 15g/m²/24 hours before applying flooring overlay. It is recommended that this testing be done by the anhydrous calcium chloride method (ASTM F1869-98).
- If less than 15g/m²/24 hours is not achieved a second coat is recommended.
- If cured coating surface is not uniformly glossy (there should be no dull patches) and streak free, then a second coat is required.

CURE TIME

Normally floors can be walked on, re-coated or adhered to in 8-12 hours. (This product has a short pot-life if kept in the original mixing container. For maximum working time pour out onto floor as soon as fully mixed.)

NOTE:- For maximum bonding between the LIQUID NAILS DIRECT STICK VBS vapour barrier and the adhesive, it is recommended to lay the adhesive within 24 hours of applying VBS epoxy vapour barrier. If the adhesive is to be applied to the vapour barrier after 24 hours have elapsed then the surface of the epoxy vapour barrier will need to be roughened with 60 – 80 grit sandpaper. It is advisable to take this into account when planning the job.

WORKING TIME

Usually 20-30 minutes when poured out onto a cool slab.

SHELF LIFE

12 months in original containers

CLEAN UP

- Discard brushes and rollers after use.
- Clean up with acetone, MEK, epoxy or lacquer thinners or minor spills and splashes with Polywipes (pre-moistened disposable cloth wipes).

SAFETY INFORMATION

- Wear protective clothing.
- Good ventilation and gloves are essential.
- Use organic vapour mask to protect from fumes where necessary.
- Avoid contact with skin.
- **For further information refer to can labels and to Material Safety Data Sheet.**

GENERAL NOTE The recommended roller is a Rota Cota 5 – 6 mm mohair roller. This gives good coverage and reduced spatter onto surroundings and walls.