

X-Shield VaporStop HB

1.0 Labor

Application of coatings is a skilled trade and should only be carried out by experienced painters. Application by unskilled labor may result in a poor surface finish, variable thickness and high wastage.

2.0 Tools and Equipment

To install the flooring system correctly the following tools and equipment will be required

- Captive blast or similar surface preparation equipment
- Hand grinder with dust extraction
- Industrial vacuum cleaner
- Slow speed drill (350 rpm)
- Approved mixing paddle
- Medium pile rollers
- Squeegee
- Rapid RH test kits
- MVER test kits

3.0 Application Properties

3.1 Wet Film Thickness (in microns unless otherwise stated)

	Minimum WFT (microns)	*L/m ²
MVER up to 15lbs/24/1000ft ²	400	0.4
MVER 15 to 20lbs/24/1000ft ²	500	0.5
MVER 20 to 25lbs/24/1000ft ²	650	0.65
Up to 90% internal relative humidity	500	0.5
90 to 100% internal relative humidity	650	0.65

* Allowance should be added for surface profile (+20 to 30%)

3.2 Pot Life (minutes)

10C	20C	30C
60	30	15

3.3 Recoat Times (hours)

10C		20C		30C	
Min.	Max.	Min.	Max.	Min.	Max.
48	72	24	48	12	24

Note: Whenever possible avoid going to the maximum recoat time. Application of the next layer should be carried out as soon as possible to prevent contamination from people walking over the surface dust and dew etc.

Contact the TAL X-Calibur Technical Advice Centre on 0860 000 TAL(825), or e-mail taltech@norcrossa.com
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www.x-calibur.co.za www.tal.co.za

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3.4 Full Cure Time (days)

10C	20C	30C
10	5	3

Note: Do not expose the surface to water or cleaning solutions until fully cured.

3.5 Temperature and Humidity Limitations

Maximum temperature of the mixed materials and substrate is to be 35C at the time of application. Minimum temperature of the mixed materials and substrate is to be 10C at the time of application. Do not apply if the temperature is within 3% of the dew point or 5C of the dew point and dropping. Maximum ambient relative humidity of 85%.

3.6 Storage

Store materials in a cool dry store off the ground and record batch numbers and expiry dates. Shelf life 12 months when stored between 10 to 30C under shade in dry conditions.

4.0 Water Vapor Emission Testing

Prior to carrying out any work the concrete should be tested to determine the moisture vapor emission (MVER) using the ASTM F1869 test method or internal relative humidity (IRH) in accordance with ASTM F2170.

For concrete slabs that have a MVER of over 20 lbs/24h/1000ft² or IRH of over 95% a trial panel must be carried out and assessed for performance for at least 60 days.

5.0 Surface Preparation

The substrate must be structurally sound. Loose or unsound concrete should be removed and made good. Surfaces must be entirely free of oil, grease, paint, corrosion deposits, dust, laitance or other surface deposits. The surface should be prepared by captive blasting or high pressure water blasting to produce a lightly exposed aggregate surface (ICRI CSP 3 or 4). Any cracks or bug holes should be filled with X-Shield BugFill after application of X-Shield VaporStop HB.

6.0 Substrate Strength

The surface strength of the substrate should be sufficient to restrain any stresses which occur during the setting and hardening of the resin floor.

Substrates that have a pull off strength of 1.5 MPa when tested to BS EN 13892-8 or ASTM D 4542 or a rebound hammer value in excess of 25 when tested to BS EN 12504-4 or ASTM C805. (Test equipment for these tests are available to purchase or rent from X-Calibur)

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7.0 Mixing

Pre-mix both base and hardener components to disperse any settlement. Add all of the hardener component into the base component and mix using a slow speed drill (350 to 500rpm) with a X-Calibur approved mixing paddle for 5 minutes until both components have fully dispersed and are uniform in color. Be sure to rotate the mixer throughout the drum. Mix only full packs.

8.0 Application

Apply in a single coat at the specified application rate (see 3.1 above) thickness using a heavy duty squeegee. Scrub the product into the pores with a long handle scrub brush and then back roll using a short hair roller to achieve a uniform finish. Apply any topping within the recoat time.

When the product is to be overcoated with a trowel finish resin screed. Immediately after application broadcast X-Tech Anti Skid Grains (M) on the surface at a rate of approximately 200 to 250g/m².

When the product is to be overcoated with a cementitious underlayment. Immediately after application broadcast X-Tech Anti Skid Grains (C) on the surface until the surface is fully covered.

9.0 Clean Up

Clean hands and skin immediately after use with an industrial hand cleaner. Clean tools and equipment immediately after use with X-Shield Solvent S.

10.0 Safety

This product is for industrial use and used by trained operatives only.

This product is potentially hazardous if not used correctly.

Please refer to the Material Safety Data Sheet (MSDS)

Painters should use barrier creams when handling coatings.

Care should be taken not to spill the coating or allow it come into contact with skin.

Painters should use the following personal protection equipment:

- Eye protection
- Gloves
- Rubber soled safety shoes
- Coveralls

When using electrical equipment such as mixers ensure that they are properly fused and earthed with the correct plug and sockets fitted.

Do not use electrical equipment if it will come into contact with water.

When using airless spray equipment the operators must have been fully trained by the manufacturer of the equipment.

11.0 Limitations

Protect from U.V.

Will not accommodate movement cracks.

Do not apply below 10C.

Avoid excessive application.

Avoid skin contact.

Do not discard into the water system.

12.0 Authorized Technical Specialist

Please note only X-Calibur Authorized Technical Specialists ("ATS") are permitted to change any of the information in this method sheet or to provide written recommendations concerning the use of this product.

13.0 Product Guarantee

TAL products are manufactured and tested in accordance with TAL procedures, which are maintained in line with Quality Control System Standard ISO 9001: 2008. TAL products are guaranteed to be free from manufacturing defects and fit for design purposes.

This guarantee is subject to the performance of TAL products when used strictly in accordance with their materials and methods specifications for the particular project, and where good workmanship is followed. However, we have no influence over specific site conditions and therefore, if in doubt, the user must always carry out sufficient tests to satisfy himself/herself that the product is suitable for the intended purpose. In special cases, obtain professional advice.

TAL cannot be held responsible for the standard of workmanship on site, or any problems caused by unsound structures or foundations, cracking of the substrate, deflections of slabs or backgrounds, vibration, creep movement of the structure, etc, or any products which have been adulterated, contaminated or misused in any way. The aforementioned list is not exhaustive.

NOTE: We require timeous notification of an alleged defect and the opportunity to assess and investigate the problem to our satisfaction prior to any remedial work whatsoever being carried out.

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