

# Technical Data Sheet

## Traxite VE – Resin Flooring Resurfacing System



### DESCRIPTION:

Traxite VE is an in-situ, trowel applied system designed for the reinstatement of non-slip properties or upgrading existing Sureshield | Industrial Terrazzite and Surechem VE floors.

### TRAXITE SYSTEM

- The system consists of a resin base which is applied to a primed substrate.
- The chosen aggregates are applied to the wet resin in excess.
- Once cured, the excess is removed and the bound aggregates are over-coated with the chosen topcoat.

### TYPICAL FEATURES | BENEFITS:

- Rapid Cure: Full system may be installed within an 8hr period.
- Excellent abrasion resistance (6 times that of basalt concrete).
- Excellent impact resistance:
- Cured Film is non-toxic
- Suitable for use in dry or wet situations including ramps.
- Traxite VE has been specifically designed to provide excellent all-round chemical resistance at both end of the pH scale i.e. concentrate acid and alkali compounds.
- Chemical resistance and general physical properties can be improved by POST CURE TREATMENT.
- Excellent slip resistance. Specification is needed of the degree required \*Note\* Please read detail within
- Good resistance to thermal shock. When cured, will perform at all normal in-service temperature ranges.
- Will not support bacteria or fungal growth. Contains STERISHIELD to retard microbial growth.
- Good weathering resistance. May chalk and exhibit slight discolouration when subjected to prolonged UV exposure. This will, however, not detract from its general durability and chemical resistance.
- Excellent chemical resistance.
- Excellent adhesion to properly prepared substrate.
- Easily cleaned. Waterblast resistant.
- Not moisture permeable

### COLOUR OPTIONS:

- Traxite VE Resin may be tinted to closely match the colour of the natural aggregates that are generally used in Sureshield | Industrial Terrazzite & Surechem VE Flooring Systems -
- The tinting of the Primer and Basecoat Resins only will even out the overall colour of the floor.  
\*\*Note\*\*  
The Top-Coats are not generally tinted and if done will detract from the overall appearance of the finished floor.  
(Refer allnex Construction Products for advice if requiring a tinted Top-Coat Option)
- The Rapidcote clear resin system may be used as the topcoat with coloured quartz.  
These aggregates are artificially coloured in a range of bright attractive finishes. They may be blended as required.

### PERFORMANCE DATA:

Minimum Thickness	3mm
Minimum Application Temperature: Air	+12°C
Maximum Application Relative Humidity: Air	85%
In-service temperatures: on fully cured system	-50 to + 82°C
Chemical Resistance	Resistant to chemical spillage –cured 7 days at 25°C. .Refer Chemical resistance chart
Flexural strength	130MPa
Flexural modulus	3.3 GPa
Tensile strength	76MPa
Heat resistant	82°C (Note: temperature resistance is lowered when combined with certain chemicals & temperatures)
Moisture absorption: ASTM D570-63	0.04%
Weight per m <sup>2</sup> @ 3mm thickness	4.4kg
Slip resistance	R10 to R13. (when used with sharp aggregate)

**RECOMMENDED USES:**

For the Rejuvenation and Reinstatement of the Non-slip Profile in many areas where a high degree of chemical, mechanical and slip-resistance is of prime importance:

- Beverage Processing: Bottling Plants | Breweries | Fruit Juice | Wine etc.
- Dairy Factory Floors. CIP areas | Main Process Halls/Rooms | Tanker Bays
- Seafood Processing: Wet Fish | Shellfish | Freezers | Chillers | Cool Stores etc.
- Interior/exterior use.
- Suitable for use in dry or wet situations including ramps.

**LIMITATIONS:**

- Application to damp surfaces or when surface dew point has been reached.
- Application to unstable or defective substrates without approved remedial treatment prior to installation.
- Application below +12C.
- Application where fumes may contaminate adjacent foodstuffs (refer to allnex Surecote 500AR for odour free installations). This only applies in the installation stage (up to 3 hrs after installation).
- Application over existing coatings/toppings other than Sureshield | Industrial Terrazzite and Surechem VE.
- Ceramic tiles without specific written allnex design specification.
- Refer to allnex chemical resistance data.
- Whitening/Blooming: Traxite VE surfaces will go white if exposed to water or dew point condensation from walls before it is fully cured. Take great caution that working areas are protected from water or condensation during the curing Period. This may be cleaned off; see cleaning / maintenance doc.
- Always ensure the final Topcoat has the addition of wax to ensure the full cure cycle of the material. (Refer - Topcoat Section)

**STORAGE OF MATERIALS:**

Store at normal ambient temperatures (neither hot nor cold); never in direct sunlight. (storage in shipping containers will generally result in over heating). (Hot vinyl ester will cure very rapidly). (cold vinyl ester will not cure fully).

**MIXING AND SITE CONDITIONS:**

Shield mixing area and work site floor areas from direct sunlight and UV.

Directly impacting UV light will rapidly accelerate vinyl ester curing.

Strong winds across the surface during curing may cause shrinkage cracking.

**CHEMICAL RESISTANCE CHART:**

Test procedure ~ Total immersion

Observation ~ Checked for chemical attack and hardness throughout the testing period

Results ~ Taken after 3 weeks exposure

Test Media	Concentration	Surechem VE	Test Media	Concentration	Surechem VE
<b>ACIDS</b>			<b>ALKALIS</b>		
Hydrochloric Acid	37%	U	Potassium Hydroxide	30%	A
Sulphuric Acid	70%	U	Caustic Soda	50%	U
Acetic Acid	70%	M	Sodium Hypochlorite	Refer allnex	Refer allnex
Hydrofluoric Acid	20%	EF may attack aggregate			
Nitric Acid	30%	U	<b>SOLVENTS</b>		
Nitric Acid	40%	EF*	Ethanol		M
Citric Acid	SAT SOLN	U	Toluene		A
Lactic Acid	All	U	Acetone		D
Phosphoric Acid	85%	U	Isopropanol		U
Oxalic Acid	SAT	U			
Hydrogen Peroxide	35%	U			
Hydrogen Sulphide	All	U			
<b>PETROCHEMICALS</b>			<b>DISINFECTANTS &amp; CLEANERS</b>		
Kerosene		U	Detergent (DET 18)	100%	U
			Bleach (2.5% Sod Hyd Cl)		M
			MEKP – M50		A
<b>OTHERS</b>					
Sugar Syrup	30%	U	<b>SALT SOLUTION</b>		
Distilled Water		U	Brine	SAT SOLN	U

**LEGEND:**

U	Unaffected (i.e. after 3 week exposure the samples have not changed)	M	Marked (Short term exposure, the test media will leave a mark on the sample)
A	Attacked (Short or long term exposure, the mechanical properties will deteriorate)	D	Destroy (Short or long term exposure, damage will occur)
EF	Evaluate Further	*	Staining May Result

Solutions are Aqueous unless otherwise stated

**SUBSTRATE: – Preparation**

All substrates shall be stable and solid.

**\*\*\*\*Note\*\*\*\***

All control joints junction cracks in the substrate etc. are to be properly treated.

**EXISTING RESIN FLOORING:**

- Remove all contaminants and any other material likely to affect the adhesion of the Traxite VE
- Prepare the existing Resin Floor by mechanical abrasion method to CSP4-5
- Ensure the floor is dry and free from Dew Point

**\*\*\*\*Note\*\*\*\***

If the substrate is an above grade installation, check that the original floor has a waterproofing layer to comply with NZBC E3. If not then tank the floor and cove upstands with a layer of 450gsm CSM fibreglass. This will provide a seamless waterproofing layer. Ensure the floor is clean, dry and prepared as above prior to the installation of the Fibreglass System.

allnex Construction Products should be consulted when installing allnex Traxite VE on any Resin Flooring on suspended floor slabs.

**PLYWOOD | TIMBER:**

Consult allnex for information

**COVES:**

Coves are to remain smooth.

**STZ PREFILL: (for adding falls, slope modification and floor angles)**

STZ prefill system types: see STZ technical literature.

The falls must be specified pre-tender. (Traxite VE is 3mm thick and prefill will involve significant extra materials).

The quantities of materials required to raise the floor height at wall perimeters is often underestimated. To do this may involve significant extra costs and should be discussed and agreed.

Normally the falls will be in the existing concrete and subsequent resin floor topping system. However, in refurbishment the drains and falls are incorrect. Sometimes new drains are installed.

It is sometimes required that a STZ Prefill system to be used under Traxite VE to create falls to drains and other filling applications.

The Prefill create falls of at least 1: 50 to ensure no ponding water. (1:100 will fall but will have standing water in places). See image latter in the document.

**QUALITY ASSURANCE:**

The allnex Licensed Contractor shall ensure all QA checks have been undertaken prior to the installation process and subsequently during the installation process. The completed documentation must be made available to allnex and the client/clients authorised personnel.

The product is to be installed within the required control range to ensure a fully cured hard wearing monolithic floor topping system.

Information to be recorded daily is:

Concrete sub-base or prefill mix.

- Material batch numbers used.
- Sequence of mixing, ratios and quantities and formula.
- Substrate moisture content & Substrate temperature.
- Ambient temperature | Ambient relative humidity.
- Daily detail of licenced contractors on-site.

**MATERIAL PRE-PREPARATION: (Promotion of Traxite VE Resin)**

New Pails of Traxite VE resin are marked as un-promoted.

allnex supply the Traxite VE in pails with open top lids, thus enabling the Promotor (Cobalt) to be mechanically mixed into the resin base.

- Use a separate catalyst dispenser and mark it for Cobalt use only.
- The cobalt can be added up to 12 hours prior to use.
- Mix the cobalt into the resin in a separate operation on the same day as use; away from the work area.
- Then take the promoted material to the workface for catalyst addition.
- Always add Cobalt first, mix and then add catalyst.

**\*\*\*\*Never mix Cobalt and catalyst\*\*\*\***

***Pre-train staff.....The pails are marked as un-promoted – tick or mark once promoted.***

**\*\*\*\*Check the Cobalt's age and stability by doing a TRIAL prior to work start\*\*\*\***

- Promote at the correct level, then add a 1.5% catalyst to check that the reaction starts.
- Even if high catalyst levels are added, un-promoted resins will not cure.
- This trial can also be used if confusion occurs about Cobalt addition.
- Be well organised and train staff clearly in the promotion and catalysation process - Mistakes are costly.

#### **TRAXITE VE COBALT MIXING RATIO:**

Product	Cobalt Addition
Cobalt Octate 6%	0.3% ~ 60 grams per 20kg

**\*\*\*\*Note\*\*\*\***

Variations on the level added as stated above are permitted with allnex consent in certain environmental conditions. Refer: allnex Construction Products for advice.

***Be well organised and train staff clearly in the promotion and catalysation process - Mistakes are costly.***

#### **TINTING:**

Product	Tinter Addition
B1TTP Tinters	Maximum 5.0% on resin weight depending on temperature.

#### **CATALYST:**

Product	Catalyst Addition
VE Catalyst	Use 1.5 - 2.0% on resin weight depending on temperature.

#### **RETARDER:**

Where extended working time is required allnex VE Retarder may be incorporated in the resin prior to the addition of catalyst. There are maximum recommended addition rates. Refer: allnex Construction products for advice.

#### **INSTALLATION:**

- Prime the properly prepared floor areas with minimum one coat of Traxite VE as the Primer.
- Maximum coverage 6m<sup>2</sup>/litre/coat.
- Broadcast sparingly into the wet resin, Walton Park 18/36 – this will act as the gauge for the Traxite VE Body-coat.
- Wait until Primer has gelled/set before applying the Traxite VE Body-coat.
- Traxite VE body-coat must be applied in such a manner to achieve a minimum 1mm thickness.
- This is done by trowelling the Traxite VE resin onto the prepared surface using the Walton Park 18/36 in the Primer coat as the gauge.
- Over-seed the Wet Traxite VE resin body-coat with the chosen aggregate – This must be broadcast to complete refusal.
- No resin must be left showing on the surface.
- Once cured – sweep of excess aggregate and apply Topcoats

#### **TRAXITE VE M<sup>2</sup> APPLICATION COVERAGE:**

Traxite VE – Primer Coat	0.25kg
Traxite VE – Body-Coat	1.2kg
VE Hardener	1.5 -2.5% -on weight of resin
Broadcast Aggregate	6.2kg – excess from this is swept off

#### **TOPCOAT: - Options**

- Once finished and hardened apply the chosen Topcoat.
- The Topcoat must be applied only to clean and dry surfaces.
- Topcoat application rates are shown in the Non-Slip Floor Definitions below
- Traxite VE Resin must have the addition of Wax Solution (5% Wax in Styrene) for the final Topcoat.

**TOPCOAT OPTIONS**

Topcoat Type	Use
Traxite VE	High Chemical Resistance
Rapidcote Clear	Over Coloured Quartz Aggregate

**WAX SOLUTION ADDITION RATIO:**

Product	Wax Solution Addition
Traxite VE Resin	2% by weight

**\*\*\*\*Note\*\*\*\***

Additional topcoats will reduce surface texture and slip-resistant properties.

**\*\*\*\*Note\*\*\*\***

Other Topcoat options are available however; these may not be suitable for some applications (Refer: allnex Construction Products for advice)

**NON-SLIP: - floor definitions:**

The contractor shall ensure that the surface finish in all zones is agreed with the client.  
(Samples to be supplied and agreed prior to installation).

allnex Rating	Description	CF Rating NZ/AS3661.1:1993	Examples Completely homogeneous floor	Topcoat Requirements	
				Number of coats	Spread Rate per litre
NR3.A	Medium duty non-slip – Q1 Aggregate The Q1 non-slip aggregate is broadcast into the wet surface. This is a full spread applied heavily to excess. Follow this with roller applied topcoats.	R 12	Continually Wet areas with non-slip required. e.g. Light duty Meat, fish. Wet area Bakery.	2 1 <sup>st</sup> Coat 2 <sup>nd</sup> Coat	2.5m <sup>2</sup> 4.0m <sup>2</sup>
NR3.B	Heavy duty non-slip – The 18/36 non-slip aggregate is broadcast into the wet surface. This is a full spread applied heavily to excess. Follow this with roller applied topcoats.	R12+	Heavy duty e.g. Butchery, abattoirs Fish Processing	2 1 <sup>st</sup> Coat 2 <sup>nd</sup> Coat	2.0m <sup>2</sup> 4.0m <sup>2</sup>
NR4	Very sharp non-slip: The 18/36 mixed 50/50 with Silicon carbide non-slip aggregate into the wet surface. This is a full spread applied heavily to excess. Follow this with roller applied topcoats.	R13+	Heavy duty processing with extra slip hazards.	2 1 <sup>st</sup> Coat 2 <sup>nd</sup> Coat	2.0m <sup>2</sup> 4.0m <sup>2</sup>
NR5	Specialised very heavy duty nonslip. Refer to allnex for a specification.				

**\*\*\*\*Note\*\*\*\***

- The aggregates must be broadcast into the wet Traxite VE body coat; not into the topcoat.
- Ensure the contractor supplies information on the above non-slip ratings and provides a cured sample showing the surface finish.

**PRODUCT PROPERTIES:**

Pot Life	25°C -50%RH	15– 30 minutes*
Hard Dry	25°C	3+ hours*
Light Foot Traffic	25°C	5 hours minimum*
Full Use - unrestricted	25°C	> 18 hours*
Recoat	Anytime within 24 hours. (After 24 hours: Requires special preparation)	
SG kg/litre	~Resin ~Hardener	1.02 1.0
Thinning	~Traxite VE Base-coat ~Traxite VE Topcoat	N/A – not to be thinned Maximum 5% Styrene Monomer
Dangerous Good Class	~ Traxite VE Resin ~ VE Hardener	Hazard Class 3   Packing Group III Hazard Class 5.2
Packaging	~ Traxite VE Resin ~ VE Hardener	20kg Open top metal container 5kg Plastic Container
Shelf life	6 months from date of manufacture (After this period consult with allnex)	

\*Excludes the use of Retarder in the Traxite VE Resin

## JOINTS:

All concrete control and construction joints should be carried through the Traxite VE:

- C81 for movement joints
- K130 for control joints. (Use K130 for larger joints).

## HEALTH & SAFETY: Refer safety data sheets (SDS).

- Overalls are recommended when using this product. Wear gloves if this suits the user as the material will bond strongly to skin. It has not been found to be dermatitis causing.
- Fumes may be cloying in enclosed areas. The use of fans to provide positive forced air draft and/or extraction is recommended.
- The levels of fumes have been shown to be well below recommended levels. See our data on emissions on our web bulletin board.
- Flammable 3C. Erect "No Smoking" signs. No welding or naked flames permitted during installation. Have fire extinguishers readily available.

## MAINTENANCE AND CLEANING:

### Repairs:

Can be undertaken with further new Traxite VE applied directly or use Surecote 500AR (no odour option- refer allnex) repair system.

### Cleaning:

A Traxite VE floor is cleaned with stiff bristled brushes and detergents.

The stiff bristle brushes and commercial detergents will remove dirt from the non-slip surface.

The waxed nature of our top-coating system may attract dirt during the early life of the product.

Pay careful attention to cleaning at this stage.

Refer to the Cleaning document on our website.

## PRODUCER STATEMENT:

allnex Construction Products state that Traxite VE is compliant with E3 (internal water) and D1 (Access routes / slip resistance wet & dry).

Complies with fire ratings.

## FIXING OF PLANT AND MACHINERY:

Mechanical fixings into the floor must be resin fixed. This is to ensure that there is no water migration into the substrate.

Conventional expanding plugs, screws or anchors are not an acceptable fixing method.

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The logo for allnex, featuring the word "allnex" in a bold, lowercase, sans-serif font. Above the letters "i", "l", and "e" are three horizontal bars in red, green, and blue respectively.

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