

DATA SHEETS

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1. TECHNICAL DATA

1.1 DESCRIPTION

VAPORiTe®+PLUS is a deep penetrating, high solids, water miscible two-part epoxy system which is designed for the creation of a moisture / vapour barrier on cementitious screeds and concrete surface beds, where excess screed moisture poses a problem for the installation of moisture sensitive finishes such as vinyl, rubber, linoleum, textile and wood.

The product is designed to allow very low levels of vapour to permeate through the coating, at a rate which will not affect the performance of the flooring system i.e self-levelling screed, adhesive and above-mentioned coverings, thus allowing it to remain unaffected by rising, residual moisture within the substrate.

1.2 COVERAGE:

VAPORiTe®+PLUS is suitable for use on porous cementitious surface beds, suspended slabs and wall surfaces where residual moisture levels exceed the permissible levels stipulated by the relevant floor covering manufacturer. The maximum is typically 3-3.5% moisture content (MC).

Should the screed moisture content exceed 6%, iTe Products technical department must be contacted for assistance on ensuring the application is performed correctly.

VAPORiTe®+PLUS yields a coverage of approximately 8m²/kg per coat. It must be applied in 2 coats, yielding a total of approximately 4m²/kg for the system. This will yield an approximate overall coverage of 18m²/4.5kg pack and is highly dependent on the porosity and conditions of the surface onto which it is applied.

Note: For the first coats, consumption is generally higher than that of the second.

Should **LEVELiTe®** self-levelling screed be utilised as part of the system, **VAPORiTe®+PLUS** must be utilised in conjunction with **iTeSLURRY®** as the key promoter.

1.3 PREPARATION:

In the application of **VAPORiTe®+PLUS**, the substrate must be sound and free of any loose particles or dust. The surface must be thoroughly swept or vacuumed prior to the application.

Any contamination of the substrate, such as old adhesives, oil, grease, paint, bitumen, skim plaster or any other substance which can inhibit the adhesion must be removed.

1.4 MIXING:

VAPORiTe®+PLUS comprises of two parts, which must be thoroughly mixed for 4 minutes with an electric paddle mixer. Care must be taken to ensure all the product from both part A and B are combined, as failure to do so could compromise the product's performance.

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1.5 APPLICATION:

VAPORiTe®+PLUS can be applied by steel trowel, mohair paint roller, or brush.

VAPORiTe®+PLUS must be applied in two coats directionally to ensure full coverage of the surface. This is to ensure no pinholing, or gaps are present in the finished coating. This must be done in a north-south/ east-west fashion, and care must be taken to ensure a defect free surface is achieved. Allow 4 hours between coats to ensure the product is adequately cured; this is highly dependent on atmospheric conditions thus this time may vary.

Care must be taken to ensure any ponding of the product is removed by means of brush or roller to ensure a thin uniform coating is achieved. Failure to do so may result in prolonged curing times and affect the ability of the product to perform as prescribed.

Following the final coat, sufficient time must be allowed for the product to cure completely prior to proceeding with the application of **iTeSLURRY®**.

1.6 POT LIFE:

Once mixed, **VAPORiTe®+PLUS** has a pot life of approximately 30 minutes. This is highly dependent on atmospheric conditions thus this time may vary.

Note: The 2 coats cannot be applied from the same **VAPORiTe®+PLUS** 4.5kg pack.

1.7 CLEANING:

Tools and equipment must be washed with water and a mild detergent immediately after use.

1.8 EXPOSURE CONTROLS & PERSONAL PROTECTION EQUIPMENT:

For information regarding **VAPORiTe®+PLUS**, visit: www.iteproducts.co.za

1.9 METHOD STATEMENT:

See sections 1.3 through 1.5 above. If more information is needed, contact the **iTe Products®** technical staff at +27 (0)11 864 4918.

1.10 SHELF LIFE:

12 months - when stored in a cool dry place unopened.

2. MATERIAL SAFETY DATA

2.1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Name of substance/preparation:

Commercial product name:..... **VAPORiTe®+PLUS** Epoxy Resin Water Miscible Dispersion

2.1.1 USE OF SUBSTANCE / PREPARATION

Industrial/Commercial/Institutional

Use for: Sealing of concrete substrates to prevent moisture transmission.

All other areas of application to be agreed with the Application Engineering/Technical Marketing Department of the manufacturer.

2.1.2 COMPANY NAME

Manufacturer/distributor:iTe Products (Pty) Ltd

Street:.....7 Clarke Street South

State/postal code/city:.....Alrode, 1451

Telephone:.....+27 11 864 4918

Telefax:.....+27 11 864 2123

Information about the Safety Data Sheet:.....+27 11 864 4918

Email:.....info@iteproducts.co.za

2.2 HAZARDS IDENTIFICATION

2.2.1 CLASSIFICATION

Classification (67/548/EEC, 1999/45/EC):

R-Phrase Description; R36/38 R43 N;

R51/53– irritant to eyes, skin

2.2.2 LABELLING

Labelling (67/548/EEC, 1999/45/EC):

R-Phrase Description – 36/38 Irritant to eyes

S-Phrase Description – 51/53 Sensitizing to skin

2.2.3 FURTHER HAZARDS TO HUMAN AND ENVIRONMENT:

The product does not have any further hazards.

2.3 COMPOSITION/INFORMATION ON INGREDIENTS

2.3.1 CHEMICAL CHARACTERIZATION:

Epoxy Resin and Polyamine Water Miscible Dispersion

2.3.2 DESCRIPTION:

Two component water-based liquid

2.4 FIRST-AID MEASURES

2.4.1 GENERAL INFORMATION:

Under ordinary workplace conditions: Remove to fresh air. Get medical assistance if symptoms are severe.

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2.4.2 AFTER CONTACT WITH THE SKIN:

Wash with plenty of water or water and soap.

2.4.3 AFTER CONTACT WITH THE EYES:

Rinse immediately with plenty of water. Seek medical advice.

2.4.4 AFTER SWALLOWING:

Give several small portions of water to drink. Do not induce vomiting. In cases of sickness seek medical advice (show label if possible).

2.4.5 ADVICE FOR THE PHYSICIAN:

None available.

2.5 FIRE-FIGHTING MEASURES

2.5.1 SUITABLE EXTINGUISHING MEDIA:

Not readily flammable in the wet state. Small fire: Dry chemical powder or water. Large fire: Water spray, water mist, extinguishing powder, foam, carbon dioxide.

2.5.2 EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS:

Not available.

2.5.3 SPECIAL EXPOSURE HAZARDS ARISING FROM THE SUBSTANCE OR PREPARATION ITSELF, COMBUSTION PRODUCTS, RESULTING GASES:

No further relevant information available.

2.5.4 SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) in the event of large fires.

2.6 ACCIDENTAL RELEASE MEASURES

2.6.1 PERSONAL PRECAUTIONS:

Wear splash goggles, boots, gloves.

2.6.2 ENVIRONMENTAL PRECAUTIONS:

Keep away from heat, or source of ignition. Absorb with dry earth. Do not allow to enter into sewer, drainage or portable water systems. Neutralize with a dilute solution of sodium carbonate.

2.6.3 METHODS FOR CLEANING UP:

Take up mechanically and dispose of according to local/state/federal regulations.

2.6.4 FURTHER INFORMATION:

Observe notes under section 7 with regards to safe handling

Observe section 8 for information on personal protective equipment.

2.7 HANDLING AND STORAGE

2.7.1 HANDLING:

Precautions for safe handling:

Keep in a cool, well ventilated area. Do not overstack.

Precautions against fire and explosion:

No special measures required.

2.7.2 STORAGE:

Conditions for storage rooms and vessels:
No special measures required.

2.8 EXPOSURE CONTROLS AND PERSONAL PROTECTION EQUIPMENT

2.8.1 EXPOSURE LIMITS:

Ensure good ventilation in work area. Keep eye wash materials in safety box. Wash hands before eating, using lavatory.

2.8.2 EXPOSURE LIMITED AND CONTROLLED:

2.8.3 EXPOSURE IN THE WORKPLACE LIMITED AND CONTROLLED

Personal protection equipment

2.8.4 RESPIRATORY PROTECTION:

In case of dust formation: fine dust mask without protection rating.

2.8.5 EYE PROTECTION:

Recommendation: in case of splashing wear safety glasses.

2.8.6 EXPOSURE TO THE ENVIRONMENT LIMITED AND CONTROLLED:

Prevent material from entering surface waters and soil.

2.9 PHYSICAL AND CHEMICAL PROPERTIES

2.9.1 GENERAL INFORMATION:

Physical state / form:.....Liquid
Colour:.....Pale yellow
Odour:.....Slight ammoniacal

2.9.2 IMPORTANT INFORMATION ABOUT THE PROTECTION OF HEALTH, SAFETY AND THE ENVIRONMENT:

Property: Value: Method:

Melting point / melting range	not applicable
Boiling point / boiling range	100°C As per water
Flash point.....	>100°C
Auto-ignition temperature.....	above 342.9°C
Lower explosion limit (LEL)	Not applicable
Vapour pressure.....	not applicable
Bulk density.....	1 g/cm ³
Water solubility / miscibility.....	Soluble in water
pH-Value	1, 13 (acidic)
Viscosity (dynamic)	not available

2.10 STABILITY AND REACTIVITY

2.10.1 GENERAL INFORMATION:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

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2.10.2 CONDITIONS TO AVOID:

Caustic Soda can induce vigorous polymerization at temperatures of 200°C.

2.10.3 MATERIALS TO AVOID:

Reactive with oxidizing agents, acids

2.10.4 HAZARDOUS DECOMPOSITION PRODUCTS:

If stored and handled properly: none known.

2.11 TOXICOLOGICAL INFORMATION

2.11.1 GENERAL INFORMATION:

Hazardous in case of eye contact (irritant). Corrosive to eyes.

Slightly hazardous in case of skin contact (sensitizer)

Slightly hazardous in case of inhalation. Irritant to mucous membranes.

2.11.2 TOXICOLOGICAL TESTS:

Acute toxicity - none available

Primary irritation:

Eyes: irritating effect; Skin sensitizing effect. Excessive liquid contact or spray mist may produce tissue damage on mucous membranes of eyes, mouth

Sensitization:

Skin sensitizing effect

Further information:

The product shows the following aspects:

Irritant

2.12 ECOLOGICAL INFORMATION

2.12.1 ECOTOXICITY:

Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):

According to current knowledge adverse effects on water purification plants are not known.

2.12.2 MOBILITY:

No further relevant information available

2.12.3 BIO-ACCUMULATION POTENTIAL:

No adverse effects known.

2.13 DISPOSAL CONSIDERATIONS

2.13.1 MATERIAL:

Do not allow product to reach sewerage system.

Disposal should be in accordance with local, state or national legislation.

Mix product residue with water, allow to harden and dispose of as construction waste.

2.13.2 UNCLEANED PACKAGING:

Recommendation:

Completely discharge packaging.

2.14 TRANSPORT INFORMATION

2.14.1 LAND TRANSPORT ADR AND RID:

Road ADR:

Valuation:.....Not regulated for transport

Railway RID:

Valuation:.....Not regulated for transport

2.14.2 TRANSPORT BY SEA IMDG-CODE:

Valuation:..... Not regulated for transport

Marine Pollutant:.....No

2.14.3 AIR TRANSPORT ICAO-TI/IATA-DGR:

Valuation:.....Not regulated for transport

2.15 REGULATORY INFORMATION

2.15.1 NATIONAL REGULATIONS:

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

Hazard symbols:

2.16 OTHER INFORMATION

2.16.1 MATERIAL:

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations.

Properties of the product are to be found in the respective product leaflet.

2.16.2 FURTHER INFORMATION:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

3. THEORETICAL (VOC) CONTENT

3.1 PRODUCT:

VAPORiTe®+PLUS Moisture/Vapour Barrier

3.2 ABBREVIATIONS

S.G. = Specific Gravity

g/ml = grams/millilitre

g/l = grams/litre

3.3 FORMULAS

Sum of VOC's in Sealer/Primer formulation = VOC %

$VOC (g/l) = VOC \% \times S.G. \times 10$

3.4 S.G. (G/ML) = 1.00G/ML

3.5 VOC % = 0%

3.6 VOC (G/L) = 0 X 1.00 X 10 = 0G/L

Maximum VOC content (Specified by Green Building Council of South Africa): 50g/l



Peter Funke

Product Development Manager

4. SHORT REPORT VOC

7 August 2014

Short Report: Product VAPORiTe +PLUS Epoxy Moisture Barrier

iTe Products **VAPORiTe®+PLUS** sealer meets the Green Building Council of South Africa's credit criteria for the following reasons:

Maximum VOC allowable (gms/litre)	50g/l
VAPORiTe®+PLUS	0g/l

This is based on the fact that the product contains no organic solvents.

I declare the above information to be correct

Signed:



Peter Funke
Product Development Manager

5. VOC CONFIRMATION NOTICE

7 August 2014

To: All interested Parties

Dear Sir/Madam,

Re: GBCSA requirements for VOC levels in flooring adhesives, sealers and primers

We hereby confirm that **VAPORiTe®+PLUS** Moisture/Vapour as manufactured by iTe Products (Pty) Ltd complies with the GBCSA requirements in respect of permissible VOC levels in flooring adhesives, sealers and primers.

The attached Short Report, VOC Datasheet and this signed letter provides the necessary supporting documentation required as per page 107 of the GBCSA Technical Manual.

The Flooring Contractor must provide written confirmation that **VAPORiTe®+PLUS** is to be used in the installation of the floor covering.

Should there be any questions or queries, please contact the writer at 082 772 9137 or via e-mail at sales@iteproducts.co.za.

Yours faithfully,



Peter Funke
Product Development Manager

6. WARRANTY

VAPORiTe®+PLUS is guaranteed to be free of manufacturing defect. **iTe Products®** further warrants that if **VAPORiTe®+PLUS** is applied in accordance with the relevant method statement issued for the specific project, by an approved applicator, the system is guaranteed for the life of the floor covering. For warranty purposes this translates as suspended slabs, and contact slabs where sound damp proof membranes and /or good drainage has been installed prior to the casting of the concrete screeds or slabs. When encountering contact slabs with questionable hydrostatic pressure issues, or the residual screed moisture content exceeds 6% as measured, a test area should be applied, and if no sign of delamination is experienced after 72 hours, the application can proceed with confidence; however, **No Warranties** can be issued under these circumstances.

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7. SUGGESTED SPECIFICATION

Apply 2 coats of **VAPORiTe +PLUS[®]** moisture barrier to the substrate in accordance with the manufacturer's specifications.

Apply a slurry comprising equal parts by volume of **BONDiTe[®]** primer and **LEVELiTe[®]** self-levelling compound in accordance with the manufacturer's specification. Apply _____m² **LEVELiTe[®]** self-levelling compound system in accordance with the manufacturer's specifications to a thickness of _____mm after priming with **BONDiTe[®]** primer.