

DATA SHEETS

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1. TECHNICAL DATA

1.1 DESCRIPTION

LEVELiTe[®] F30 self-levelling floor screed compound is a free flowing self-levelling compound developed for heavy commercial and light industrial applications that sets to 25MPa. **LEVELiTe[®] F30** has been specifically formulated for levelling and smoothing rough or uneven sub-floors prior to the installation of floor coverings and is suitable for use on cementitious screeds, concrete power floated surfaces, hardened old adhesive residues and soundly adhered ceramic and similar surfaces. Its high strength formulation has been designed to repair a variety of sub-floor types, including cement/sand screeds, and concrete floors. The applied compound can be walked on after 2 to 3 hours. Floor coverings – such as carpet, tiles, vinyl and engineered wood – can typically be installed 24 hours after application. **LEVELiTe[®] F30** can be applied in a feathered finish down to approximately 0,3mm, up to 15mm thick in one application. **LEVELiTe[®] F30** is resistant to moisture once cured, and will not swell or delaminate. Final strength is 25MPa. **LEVELiTe[®] F30** is pumpable.

1.2 SURFACE PREPARATION

NOTE: For internal use only due to the inability to control environmental factors such as wind or heat.. It is recommended that direct to ground sub-floors be protected from rising damp to prevent dimensional changes in the floor covering (confirm the maximum permissible moisture content that the floor covering or adhesive can tolerate). **LEVELiTe[®]** is resistant to rising moisture and should not swell or delaminate if exposed to reasonable moisture. Standard European practice has evolved that when vinyl flooring is to be installed, the surface bed is to be sealed with an epoxy moisture barrier, or similar. **VAPORiTe[®]** epoxy moisture barrier system has been specifically developed for this purpose. Please refer to the **VAPORiTe[®]** data sheet. The surface must be hard, sound, dry and free of dust, dirt and other materials such as grease, oil and paint.

Due to its flow characteristics, sealing strip should be placed at doorways or where the screeding compound is not desired.

1.3 PRIMING

BONDiTe[®] primer and bonding agent is a pore sealer which will maintain the flow life and prevent air bubbles rising through the applied **LEVELiTe[®] F30** screed smoothing compound. Accordingly it is necessary to prime all surfaces with **BONDiTe[®]**. With very smooth non-absorbent sub-floors e.g. power floated floors, epoxy coated water barriers, and ceramic tiles it is advisable to apply a slurry comprising one part **BONDiTe[®]** and an equal quantity of **LEVELiTe[®] F30** or to lightly grind the surface to promote adhesion.[]. When the slurry is dry, apply **BONDiTe[®]** primer onto the dried slurry and allow to dry. **BONDiTe[®]** dries very rapidly, and should be ready for leveling within approximately twenty minutes.

1.4 MIXING

LEVELiTe[®] F30 is suitable to be applied manually or for larger applications, the use of a pump can be considered to mix and then place **LEVELiTe[®] F30**.

Use 5 litres of water per 21.5 kg bag .(**LEVELiTe[®] F30** is tolerant of substrate and water temperatures from 4°C to 30°C). The water temperature will affect the setting times of the compound; colder water slows the reaction time, while hotter water speeds up the process.



LEVELiTe[®] F30

SELF-LEVELLING SCREED

Add the powder to the required amount of clean cool water in a clean mixing container such as a rubber dirt bin or 20 litre plastic bucket or larger, whilst stirring thoroughly until a lump free mortar is produced.

The use of a mixing paddle with a 10mm chuck slow speed electric drill, or a professional high torque, electric mixer, (600 RPM) makes light work of mixing, which should be for three to four minutes until the mixture is smooth and lump-free.

Mixed **LEVELiTe[®] F30** remains workable for 35 minutes after raking, but care should be taken to prevent dry joints. This time is extended at lower temperatures and reduced at higher temperatures.

1.5 APPLICATION

Pour the mixed **LEVELiTe[®] F30** onto the prepared sub-floor. The mixed mortar will flow out and self-level. Use a suitable notched steel trowel to obtain the required thickness; while a long handled pin leveller/rake with height adjustment will simplify this operation and yield more consistent results. A long handled spiked roller must be used to prevent air blisters from marring the finished surface. **LEVELiTe[®] F30** has excellent self-healing properties which extend for some 30 minutes or longer after the pour, which minimises cold joints and surface irregularities.

1.6 THICKNESS

LEVELiTe[®] F30 can be applied at a minimum thickness of 0.3mm to a maximum of 15mm in a single application.

When applying **LEVELiTe[®] F30** at a thickness of over 15mm, incorporate up to an equal volume of 3mm clean, dry, fines free, graded gravel. Alternatively, multiple layers can be applied to the dry previous layer. Contact our technical advisors for detailed information. Bulking-up of the product can be a viable option for significant sub-floor deviations where speed of drying is a factor.

1.7 COVERAGE

Approximately 1.5 kg of **LEVELiTe[®] F30** per 1 mm thickness per m². E.g. one 21.5kg bag of

LEVELiTe[®] F30 will give enough material to cover approximately 4.8m² at an average thickness of 3mm.

NOTE: The coverage figure is based on a flat level surface. Additional material should be allowed for where the surface is rough or uneven.

1.8 GENERAL

All data given was tested at a room temperature of 20°C and 50% humidity. Please be aware that the technical data may alter if the climatic conditions are in contrast to that in which the product has been tested, either hardening more quickly or setting slower.

1.9 WARRANTY

LEVELiTe[®] F30 is guaranteed to be free of any manufacturing defect. **iTe PRODUCTS** further warrants that if **LEVELiTe[®] F30** 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 floorcovering.

1.10 WARNING

Do not ingest. Keep away from children and pets. Do not empty into a drain. Wear rubber gloves, and in the event of contamination, rinse thoroughly with cold water. Seek medical advice if irritation or discomfort persists. For further information, consult the relevant health and safety data sheet.



1.11 GREEN BUILDING COUNCIL VOC REQUIREMENTS

LEVELiTe® F30 contains no Volatile Organic Compounds and therefore is totally compliant with all relevant requirements to be classed as “green.” The standard short report, theoretical VOC content declaration and VOC confirmation notice is available on request or can be downloaded from our website — www.iteproducts.co.za.

1.12 IMPORTANT NOTICE

The information supplied in our literature or given by our employees is given in good faith. We reserve the right to update this information at any time without prior notice.

2. MATERIAL SAFETY DATA

2.1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Name of substance/preparation:

Commercial product name:.....**LEVELiTe[®] F30**

2.1.1 USE OF SUBSTANCE / PREPARATION

Industrial/Commercial.

Used for: Levelling of floors

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 – irritant to eyes

This product is not a dangerous preparation within the meaning of Directive 1999/45/EC.

2.2.2 LABELLING

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

R-Phrase Description – 36/38 Irritant to eyes

S-Phrase Description

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:

Mixture

2.3.2 DESCRIPTION:

Mixture of cement and sand mixture with other non hazardous additions

2.4 FIRST-AID MEASURES

2.4.1 GENERAL INFORMATION:

Under ordinary workplace conditions: No special measures required

2.4.2 AFTER CONTACT WITH THE SKIN

Wash with plenty of water or water and soap.

First-aid measures cont.

2.4.3 AFTER CONTACT WITH THE EYES

Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

2.4.4 AFTER SWALLOWING

If conscious, 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

Due to its physical properties, may cause mechanical irritation. Product may agglutinate in the gastro-intestinal tract. Medical assistance should be sought. Depending on the symptoms, invasive measures may be necessary.

2.5 FIRE-FIGHTING MEASURES

2.5.1 SUITABLE EXTINGUISHING MEDIA

Water spray , water mist , extinguishing powder , foam , carbon dioxide .5.2 Extinguishing media which must not be used for safety reasons

Water jet .

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

No further relevant information available

2.5.3 SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING

No further relevant information available

2.6 ACCIDENTAL RELEASE MEASURES

2.6.1 PERSONAL PRECAUTIONS

Wear a dust mask

2.6.2 ENVIRONMENTAL PRECAUTIONS

Do not allow to enter into sewer, drainage or potable water systems

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:

Avoid dust formation.

Precautions against fire and explosion:

No special measures required

2.7.2 STORAGE

Conditions for storage rooms and vessels:

No special measures required

Advice for storage of incompatible materials:

not applicable .

Handling and storage continued..

Further information for storage:

not applicable .

2.8 EXPOSURE CONTROLS AND PERSONAL PROTECTION EQUIPMENT

2.8.1 EXPOSURE LIMITS -

2.8.2 EXPOSURE LIMITED AND CONTROLLED

2.8.2.1 EXPOSURE IN THE WORK PLACE LIMITED AND CONTROLLED

General protection and hygiene measures:

Do not breathe dust. Do not eat when handling.

Personal protection equipment

Respiratory protection

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

Eye protection

Recommendation in case of dust formation: tight fitting protective goggles .

2.8.2.2 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.....: solid - powder

Colour: grey - brown

Odour: odourless

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: not applicable

Flash point.....: not applicable

Auto-ignition temperature.....: product is not self-igniting

Lower explosion limit (LEL): not applicable

Vapour pressure.....: not applicable

Bulk density...: 1300-1500 kg/m³ (DIN EN ISO 60)

Water solubility / miscibility.....: Insoluble sets in water

pH-Value: 11

Viscosity (dynamic): not applicable

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.

2.10.2 CONDITIONS TO AVOID

none known .

2.10.3 MATERIALS TO AVOID

none known .

2.10.4 HAZARDOUS DECOMPOSITION PRODUCTS

If stored and handled properly: none known . At increased temperature: acetic acid .

2.11 TOXICOLOGICAL INFORMATION

2.11.1 GENERAL INFORMATION:

According to our present state of knowledge no damaging effect expected when treated in accordance with standard industrial practices and local regulations where applicable.

2.11.2 TOXICOLOGICAL TESTS

Acute toxicity

Primary irritation:

Eyes: irritating effect

Sensitization:

no sensitizing effects known

Further information:

The product shows the following aspects:

Irritant

2.12 ECOLOGICAL INFORMATION

2.12.1 ECOTOXICITY

No expected damaging effects to aquatic organisms.

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

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

2.12.2 MOBILITY

No further relevant information available

2.12.3 BIO-ACCUMULATION POTENTIAL

No adverse effects expected.

2.12.4 OTHER HARMFUL EFFECTS

2.12.5 ADDITIONAL INFORMATION

General information:

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. Paper packaging may be recycled

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.

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.

End of Safety Data Sheet -

3. METHOD STATEMENT

3.1 THICKNESS & USAGE

LEVELiTe[®] F30 can be applied from 0.3mm thick to a maximum of 15mm, multiple layers should be added, with a coat of **BONDiTe[®]** primer between layers. A bulked up system can also be used, whereby one incorporates an equal volume of 3mm clean, dry fines-free graded gravel to the mix. Approximately 1.5 kg of **LEVELiTe[®]** per mm per m² will be required. **BONDiTe[®]** must be used as a primer onto the concrete substrate to prevent air bubbles from rising once the **LEVELiTe[®]** is applied, to ensure a proper flow of the compound over the substrate and to bind the surface well. **BONDiTe[®]** is applied at an average of 4m² per litre.

LEVELiTe[®] F30 is available in 21,5kg bags. **BONDiTe[®]** is available in 5 & 25Litre Plastic Containers.

3.2 PREPARATION

Prior to applying **LEVELiTe[®] F30** Self Levelling Compound, it is important to determine that the substrate is sound (cracks are often an indication of delamination between the slab and sand/ cement screeds, and it is advisable to tap the screed at regular intervals and listen for hollow sounds which indicate poor inter-coat adhesion), with no loose or friable material evident, dry, ie less than 5%MC (Verify the maximum permissible screed moisture level of the floor covering to be installed, and that screed moisture tests indicate suitability), free of contaminants and dust free.

LEVELiTe[®] is resistant to moisture, and will not expand or delaminate when exposed to reasonable levels of screed moisture), free of contaminants and dust free.

NOTE: For internal use only, as there is no control over natural elements such as heat or air movement. It is recommended that direct to ground sub-floors be protected from rising damp to prevent dimensional changes in the floor covering (confirm the maximum permissible moisture content that the floor covering or adhesive can tolerate). Standard European practice has evolved that when vinyl flooring is to be installed, the substrate is to be sealed with an epoxy moisture barrier, or similar. **VAPORiTe[®]** epoxy moisture barrier system has been specifically developed for this purpose.

Should hollow areas be found, this is best rectified by establishing the affected area, cutting a border around the area with an angle grinder, removing the loose screed and filling the area with **PATCHiTe[®]** Rapid Set Patching Compound.

Any large holes or saw cut joins should be patched or filled by pouring mixed **PATCHiTe[®]** into them and trowelling the surface flush with the adjacent surfaces. Commence with the application once the **PATCHiTe[®]** is dry. Where expansion joints are encountered, it is important to honour these and establish the end client's finish specification to ensure compliance with technical slab movement requirements.

Assess the access area where the **LEVELiTe[®]** is to be mixed and if necessary, place protective plastic sheeting on the ground to prevent cement dust contamination. When the job is complete, it should be clean and tidy, as it was found.

3.3 PRIMING

The screed must be primed with **BONDiTe[®]** primer and bonding agent, using a lamb's wool roller or brush, making sure that the entire surface is well coated. The **BONDiTe[®]** seals the concrete pores and promotes the smooth flow of the levelling compound while preventing air bubbles rising through the applied



LEVELiTe[®] F30

SELF-LEVELLING SCREED

LEVELiTe[®] F30.

At this point it is advisable to install sealing strip to doorways and places where the compound is to end. To ensure that no bubbles arise, care must be taken that no uncoated spots are left. Please note that the primer must be allowed to dry properly before application of the levelling compound. This normally takes approximately 20 minutes.

At this point it is advisable to install the sealing strip to doorways and places where the compound is to end. Bond 10 x 10mm foam tape to surfaces where the compound is to end, eg. doorways, stairs etc. This will prevent the self-leveller from running into areas not to be levelled.

Non-absorbent substrates such as power-floated concrete, ceramic or porcelain tiles must first be primed with a **BONDiTe[®]** slurry comprising 1 part of **BONDiTe[®]** and 1 part of **LEVELiTe[®]** (by Volume), which is brushed on with a broom or stiff brush and allowed to dry. Prior to application of the self-levelling compound, the surface must be primed with **BONDiTe[®]** and allowed to dry to prevent air bubbles.

3.4 MIXING

Smaller areas can be dealt with by mixing in a 20 litre bucket. It is recommended that a slow speed electric mixer or drill with a 10mm shank mixing paddle (600RPM) is used to ensure thorough mixing. Larger areas may require a mixing vessel that can accommodate say 20 litres of water. Rubber or thick-walled plastic rubbish bins are well suited. Mixed compound can then be carried to the application area or if applicable, pumped to the specific location.

Pour measured 5 litres of clean water into the 20 litre bucket, or multiples of the measured 5 litres depending on the amount of bags of **LEVELiTe[®]** (5 litre per 21.5 kg bag) into the larger vessel. Pour the **LEVELiTe[®]** into the container while mixing with mixer, until a smooth, lump-free paste is obtained. Mixing should take between 3 and 4 minutes.

The mixed **LEVELiTe[®]** should be applied to the substrate within 5 to 10 minutes of mixing. This time is dependent on ambient temperatures, which will affect the setting time. (Warmer temperatures will speed up the drying, while colder ones will prolong it). **LEVELiTe[®]** maintains self-healing properties for some 35 minutes before the initial set kicks in.

3.5 APPLICATION

Pour the mixed **LEVELiTe[®]** onto the primed substrate, spreading it out with a long handled pin leveller with adjustable skegs, or a notched rake suitable for the required thickness, "pushing" the compound to fill initial area, and the "pulling" or "drawing" the compound until the entire surface is covered.

It is best to meld subsequent pours into already applied product and drawing the mixture away to obtain a constant thickness. The self-levelling properties of the **LEVELiTe[®]** will ensure an even, smooth distribution of the compound. Roll the wet compound with a spiked roller gently and slowly, but thoroughly, at right angles to the draw, before the setting process advances too much. This will remove any small air bubbles and retain effective mixing or any deviations left by the skeg leveller. The person rolling the compound should wear spiked boots to minimise disturbance of the applied compound.

NB. Floor coverings can typically be installed the following day, 24 hours after the application of the levelling compound. When left uncovered, the new screed may become contaminated by building activities, and it is recommended that once cured, that it is protected by covering with a suitable material.

3.6 PUMP PREPARATION

Careful planning is important when applying **LEVELiTe[®]** with a pump, as large areas are completed very quickly. Firstly the position of the mixer and pump is to be established to ensure an easy exit once the

The logo for LEVELiTe F30 SELF-LEVELLING SCREED. It features the word "LEVEL" in a bold, black, sans-serif font. To its right is a black circle containing the word "iTe" in white, with a registered trademark symbol (®) to the upper right of the circle. To the right of the circle is "F30" in a large, bold, red, sans-serif font. Below the "LEVEL" and the circle is the text "SELF-LEVELLING SCREED" in a smaller, black, sans-serif font.

LEVELiTe[®]F30

SELF-LEVELLING SCREED

entire area is covered. Preferably two 15 Ampere electrical sockets should be close by and easily accessible, as is the case for water supply, and a suitable drain for waste water.

Assess the access area where the pump is to be located and if necessary, place protective plastic sheeting on the ground to prevent cement dust contamination. When the job is complete, it should be clean and tidy, as it was found.

Study the lay out of the area to be applied, and work out where to start, the progress route and the best way to get to the final point of exit. Check that the dispensing pipe reaches to the furthest point, and how it will be extracted at the end, without damaging the newly applied leveller.

Bond 10 x 10mm foam tape to surfaces where the compound is to end, eg. doorways, stairs etc. This will prevent the self-leveller from running into areas not to be levelled. Make sure it has adhered properly.

It is recommended that two people be available to direct the pipe outlet, (depending on area size), two people to draw the poured material with the skag levellers, and two people to roll the applied mixture with long spiked rollers. One person is sufficient to break the bags into the mixer.

Open the water source and start the mixer and pump. Place the outlet of the discharge pipe into the drain, and monitor, to check that there is sufficient power and water supply, and that there are no obstructions in the pipe. The **LEVELiTe[®]** bags are to be emptied into the mixer, and the outlet observed. Once the cementitious mix emerges, the pump should be turned off and the outlet pipe should be lifted at head height and taken to the starting area where the **LEVELiTe[®]** is to be discharged.

Pour sufficient compound to allow for drawing of the compound to the desired thickness, and rake the compound out, filling the whole area. The two spiked rollers should now be introduced into the process, slowly rolling the applied area repeatedly to ensure that no air bubbles are entrapped, and that no compound build-up occurs.

Continuously break the bags into the mixer and proceed with the pour as per plan. The **LEVELiTe[®]** representative will ensure that the correct consistency of product is maintained throughout the pour.

Drawing closer to the final stages, care needs to be taken in respect of when to stop adding compound, and to ensure that the last poured product is properly raked and trowelled for continuity of appearance. Leave the tap for water open to allow for thorough cleaning of the mixer, pump, pipe and equipment.

Pour any excess compound emitted from the hose into a bucket, and once the appearance is very watery, let it run into the drain, until the water runs clear. Turn off the tap.

3.7 GENERAL

In order to maintain a constant even drying process, windows should be closed and drafts avoided.

All supplied data is based on laboratory tests conducted at 20°C, and a relative humidity of 50% as required by international standards. Based on practical building site conditions, temperatures should be between 10°C and 30°C. When higher temperatures are experienced, the drying will accelerate and allowance for this needs to be made by the applicator. Actual conditions experienced may result in slightly different results. Experience has shown that to achieve the best results in levelness, a depth of 4 to 5mm or more should be poured.

Specialist applications such as bulking out should be discussed with our technical staff.

Please do not hesitate to contact us for training or any queries you may have.

4. THEORETICAL (VOC) CONTENT

4.1 PRODUCT:

LEVELiTe[®] F30 Self Levelling Floor Screed Compound

4.2 ABBREVIATIONS

S.G. = Specific Gravity

g/ml = grams/millilitre

g/l = grams/litre

4.3 FORMULAS

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

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

4.4 S.G. (g/ml) = 1.00g/ml

4.5 VOC % = 0%

4.6 $VOC (g/l) = 0 \times 1.00 \times 10 = 0g/l$

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

Peter Funke

Product Development Manager

5. SHORT REPORT VOC

31 March 2015

Short Report: Product LEVELiTe F30 Self Levelling Floor Screed

iTe Products **LEVELiTe[®] F30** Self Levelling Floor Screed Compound meets the Green Building Council of South Africa's credit criteria for the following reasons:

Maximum VOC allowable (gms/litre) 50g/l

LEVELiTe[®] F30 0g/l

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

I declare the above information to be correct

Signed:



Alistair Mac Dougall

6. 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 LEVELiTe F10, F30, F50 and F100 Self Levelling Floor Screed Compounds as manufactured by iTe Products (Pty) Ltd comply 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 LEVELiTe F10, F30 or F50 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,



Alistair Mac Dougall

7. WARRANTY

iTe PRODUCTS warrants that **LEVELiTe[®] F30** is manufactured to comply with international EN standards for P2 and P3 class self levelled screeds in respect of Flow determination, setting time, Drying Kinetics, and compressive strength.

LEVELiTe[®] F30 is compliant with EN expansion and shrinkage standards, is resistant to substrate moisture levels below 6% screed moisture, and will not expand or delaminate. It will also not powder or soften.

LEVELiTe[®] F30 self-levels to an end finish compliant with SANS 10070:2007, provided the thickness of application allows the elimination of deviations. The surface hardens to >25mPA, and is suitable for castor traffic, high point loadings and light vehicular traffic. **LEVELiTe[®] F30** is typically recommended for use in residential, commercial, light industrial and health-care applications, provided the sub-base is of a suitable quality.

This warranty is based on the substrate being sound, dry and free of contamination. All applications are to be carried out in strict compliance with the method statement as issued. The warranty is dependent on all the above conditions being conformed with, including a signed compliance confirmation from the applicator.

LEVELiTe[®] F30 is guaranteed not to delaminate, break up or deteriorate under a vinyl floor covering for the life of the floorcovering itself, provided that it is applied on a sound substrate in accordance with our specifications as indicated above.

iTe PRODUCTS further warrants that the products are manufactured to strict quality control standards and that the products supplied are free of defect.

8. INFORMATION SHEET

F10, F30 and F50 Self Levelling Compound Information Sheet

As a basis for evaluation of self-levelling compounds we use the applicable European Standard EN 13813:2002. This information sheet tries to set out the criteria used in the evaluation, and where our **LEVELiTe[®]** products are positioned. Products are classified under performance classes, P2, P3, P3R, P4 and P4R. The table at the end of this sheet sets these out.

Effective Date: January 2015

DESCRIPTION:	RANGE OF CONFORMITY – WHAT IS ARE GOOD VALUES.	EXPLANATION
1. Compressive strength	Wide range of conformities are applicable but most screeding compounds range between 20-30MPa	What does MPa really mean? The actual load or force the material can handle before deforming (crushing in this case) Calc: 1 MPa = 1N/mm ² = 0.102 kg force/ mm ² E.g. The maximum load for a trolley wheel that has a contact area of 10mmx25mm on a screed with a compressive strength of 20MPa would be: 20 MPa = N (force)/250mm ² (area) N(force) = 5000 Newton Therefore the point load for a surface contact area of the 10mmx25mm wheel can be as much as +/-510kg load per wheel For the same wheel size and a 30 MPa substrate the wheel could exert a load of 765kg.
2. Flexural strength	Wide range of flexural strength are applicable but good values would range between 6-10 MPa	Flexural strength is the tensile force that the material can withstand. A typical example of this is the higher the flexural strength the better the product can withstand excessive shrinkage without cracking or slab deflections due to loading of the slabs.
3. Wear resistance	The best values attainable for abrasion resistance is in the class AR0.5 in accordance to the BCA testing method	This is one of the most important features in high traffic areas such as hospital corridors and the like in conjunction with vinyl application. The class rating AR0.5 means that the average wear resistance is no more than 50µm over the given test area.
4. Bonding strength	Bonding strength is the amount of force needed to pull the screed from actual substrate. This is described in MPa or N/mm ² . A very good class would be a B2.0 = 2MPa	The bond strength is a very important aspect to prevent delamination of the screed. Screeds are always subject to some or other force within itself. Reason for this can be internal or external. Internal forces are created by shrinkage or expansion of the screed itself and external factors would be issues such as deflection of suspended slabs when placed under load.
5. Setting time	A good setting time is around 30-40 min on Self Levelling Screeds.	Fast track construction in today's world calls for quick setting systems. A fine line is also drawn here to allow the contractor enough time to apply the product but have it cure sufficiently to be able to lay the floor covering 24h later.
6. Consistency /Flow	These are more based on internal testing of the manufacturer and flow should be consistent over the duration up until initial setting of the screeding compound	Proper flow of the screeding compound facilitates the system to find its true level and to fill all deviations and voids in the substrate leaving a smooth and level surface to apply the floor coverings on to.



LEVELiTe[®] F30

SELF-LEVELLING SCREED

7. Shrinkage in dry environment	Shrinkage is not allowed to be in excess of 1mm/m A safe shrinkage number would be between 0.3-0.5mm/m	Shrinkage comes from excess water in the system evaporating into the air. This leaves voids in the screed resulting in shrinkage. If the shrinkage becomes excessive (>1mm/m) then internal forces will exceed the internal flexural strength on the screed, resulting in cracking.
8. Expansion in a wet environment	Expansion is not allowed to be in excess of 1mm/m. A safe expansion number would be 0.3-0.5mm/m	Most levelling compounds are subject to expansion under wet/moist conditions. An excess expansion will result in the internal forces exceeding the screeding bond strength. Bonding strength should therefore be around 2MPa to avoid any delamination.
DESCRIPTION:	RANGE OF CONFORMITY – WHAT IS ARE GOOD VALUES.	EXPLANATION
1. Compressive strength	Wide range of conformities dependent on application requirements—15 to 40MPa+	MPa equates to the actual load or force the material can handle before deforming (being crushed). Calc: 1MPa = 1N/mm ² = 0.102kg force/mm ² Eg. A trolley wheel with a contact surface area of 25 x 10mm, on a 25MPa LEVELiTe F30 screed can bear a maximum load of 637.5kg
2. Flexural strength	Wide range of conformities dependent on application requirements—6 to 10MPa	Flexural strength is the tensile force that the material can withstand. I.e: The higher the flexural strength, the better the product can withstand excessive shrinkage without cracking, or slab deflections due to loading of the slabs.
3. Wear resistance	The best values attainable for abrasion resistance is in the class AR0.5 in accordance with the BCA test method	This is one of the most important features in high traffic areas such as hospital corridors and the like in conjunction with vinyl application. The class rating AR0.5 means that the average wear is no more than 50µm over the test area.
4. Bonding strength	Bonding strength is the amount of force needed to pull the screed from the substrate. This measured in MPa or N/mm ² . A very good class would be a B2.0 = 2MPa	The bond strength is critical to prevent delamination of the screed. Screeds are continually subject to forces within itself, either internal or external. Internal shrinkage or expansion, or external factors such as deflection of slabs can cause delamination.
5. Setting time	Initial Set—25 to 30 minutes Walkability—2 h30min Final Set—24 Hours 75% Final hardness—72 hours Final Hardness—28 Days	Due to site conditions, the newly laid screed must be able to take foot traffic asap. This should be in approximately 2 hours. If the setting is too rapid, the product is very difficult to apply without dry joints. The drying of the screed should enable installation of vinyl after 24 hours. (thickness dependent)
6. Consistency /Flow	The better the flow, the better the self-levelling properties. The flow should be consistent during the duration of the application until the initial set commences. The flow test should exceed 135mm diameter.	Proper flow of the screeding compound facilitates the system to find its true level and to fill all deviations and voids in the substrate, leaving a smooth and level surface ready for the application of floor coverings.
7. Shrinkage in dry environment	Shrinkage is not allowed to exceed 1mm/m1 (SANS 10070:2012). A safe shrinkage number would be between 0.3 and 0.5mm/m1	Shrinkage comes from excess water in the system evaporating into the air. This leaves voids in the screed resulting in shrinkage. If the shrinkage is excessive, (>1mm/m1), then the internal forces will exceed the internal flexural strength on the screed, resulting in cracking.
8. Expansion in a wet environment	Expansion is not allowed to exceed 1mm/m1 (SANS 10070:2012). A safe expansion number would be between 0.3 and 0.5mm/m1	Most levelling compounds are subject to expansion under wet/moist substrate conditions. An excess expansion will result in the internal forces exceeding the screed bond strength. Bonding strength should be around 2MPa to avoid any delamination.

9. SUGGESTED SPECIFICATION

Self Levelling Compound | Commercial application

Application examples: Hospitals, Offices, Shopping centres etc. - High foot and roller traffic

LEVELiTe[®] F30 self-levelling floor screed compound is a free flowing levelling compound that has been specifically formulated for levelling and smoothing rough or uneven sub-floors

Usage Rate: 1.5Kg/m²/mm

Initial Set (Vicat) : 30 minutes

28 day MPa strength according to EN Prism test: 25

Pack Size: 21,5kgs