**LEVELiT® F50 Method Statement**

**THICKNESS & USAGE**

**LEVELiT® F50** can be applied from 0.3mm thick to a maximum of 15mm in a single application. For thicknesses over 15mm, incorporate up to an equal volume of 3mm clean, dry fines-free graded gravel. Approximately 1.6 kg of **LEVELiT®** 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 **LEVELiT®** 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.

**LEVELiT® F50** is available in 20.5kg bags. **BONDiTe®** is available in 5 & 25Litre Plastic Containers.

**PREPARATION**

Prior to applying **LEVELiT® F50** Self Levelling Compound, it is important to determine that the substrate is sound (cracks are often an indication of delamination between the slab and cement sand screeds, and it is advisable to tap the screed at regular intervals and listen for hollow sounds which indicate poor inter-coat adhesion), 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. **LEVELiT®** 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. 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.

Bond 10 x 25mm 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.

Assess the access area where the **LEVELiT®** 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.

**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 com-
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 15 minutes. At this point it is advisable to install the sealing strip to doorways and places where the compound is to end.

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.

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 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 litres per 21.0 kg bag) into the larger vessel. Pour the LEVELiTe® into the container while mixing with mixer, until a smooth, lump-free paste is obtained. This should take not less than three 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 30 minutes before the initial set kicks in.

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 in one general direction until the entire surface is covered. 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 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.

PUMP APPLICATION

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 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 25mm foam tape to surfaces where the compound is to end, eg. doorways, stairs etc. This will prevent the self-leveler 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 skeg 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 is 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.

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.