

METHOD STATEMENT

TAL SCREEDMASTER

Revision Date: 20 December 2021



GENERAL PURPOSE METHOD STATEMENT

1. LABOUR:

Application of **TAL Screedmaster** self-levelling and smoothing Underlayment Compound is a skilled operation and should only be carried out by experienced and competent artisans with the correct training. Application by unskilled labour is not recommended.

2. TOOLS & EQUIPMENT REQUIRED

- Broom & Heavy Duty Vacuum Cleaner
- Mechanical Mixer, ie minimum 1.8kW drill with suitable paddle mixer
- Large Clean Container for mixing
- 3m Straight Edge
- Coarse Sandpaper or Corundum Stone
- Builders Block Brush
- TAL Adjustable Floor Spreader / TAL Notched Floor Rake
- TAL Spiked Shoes
- TAL Spiked Roller
- **TAL Floor Primer** – primer for rough, porous surfaces
- **TAL Floorkey** + **TAL Rapidfix** – primer for smooth, dense surfaces

3. SUBSTRATE PREPARATION

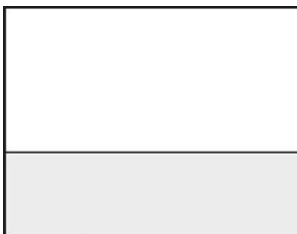
Allow all new concrete work and screeds to cure for at least 6 weeks and 4 weeks respectively before proceeding. The substrate must attain a moisture content of 5% (75% RH) or less before the TAL Screedmaster application can be commenced.

Should there be no damp proof membrane below a surface bed, or should prevailing moisture levels not attain 5% (75% RH) or less, then **TAL VaporStop HB** must be applied before the application of **TAL Screedmaster**. **TAL VaporStop HB** is a moisture tolerant, 100% solids epoxy barrier coat that prevents the passage of water vapour and moisture through concrete slabs.

TAL Screedmaster is suitably designed for application onto concrete and screeded substrates. Any Screeding or Topping must be firmly bonded to the underlying concrete, and the substrate must be of sufficient strength, with a minimum acceptable compressive strength of 20MPa and tensile strength of 1.5N/mm². The substrate must be integrally sound (no crumbling, cracking, etc) and of a quality and consistency suitable for screeding. TAL cannot be held liable should the underlayment installation be compromised as a result of failure or debonding (cohesive failure) occurring within the subsurface.

The substrate must be clean and dry and free from all traces of surface laitance and contamination such as dust, dirt, waxes, oils, bitumen, old adhesives, paint, grease, weak cement screeds, shutter release and curing agents, sealing compounds, etc.

Bituminous compounds must be removed completely. Organic or fungal growth must be removed and the spores killed using an effective fungicide.



Allow all new concrete work and screeds to cure for at least 6 weeks and 4 weeks respectively.



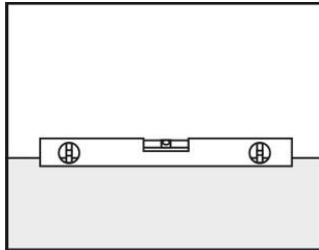
Mechanically abrade to remove all traces of surface contaminants such as residual curing agents, laitance, weak screeds, old fixatives or coatings, etc.

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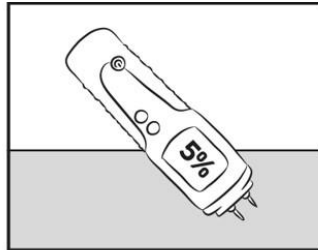
METHOD STATEMENT

TAL SCREEDMASTER

Revision Date: 20 December 2021



Conduct floor level survey.



Ensure prevailing moisture levels attain 5% (75% RH) or less.



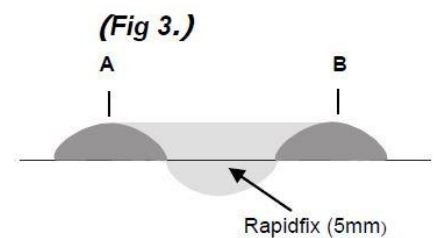
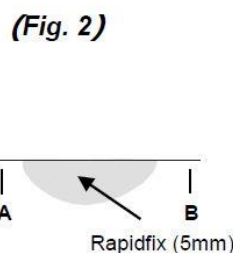
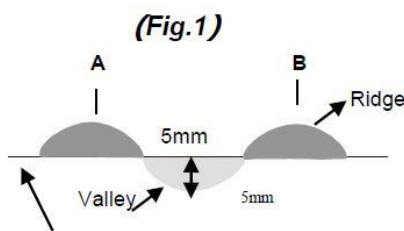
Apply TAL VAPORSTOP HB if prevailing moisture levels do not attain 5% (75% RH) or less.

4. FLOOR LEVEL SURVEY/FLOOR TOLERANCES

The success of an installation is highly dependent on the background conditions and the quality of the background preparations before applying **TAL Screedmaster**.

Since these installations are normally 3 – 5mm in thickness, it is important to ensure all highs and lows are identified and addressed before applying **TAL Screedmaster**. The use of a 3m straight edge is recommended. In identifying the highs and lows the straight edge should be placed down and rotated through 360° around the centre point. This ensures that valleys and ridges are identified together with occasional highs and lows.

Floor Preparation Example :



Floor Level Datum Point

The illustration (Fig. 1) above shows a maximum and a minimum of 5mm in the levels. Thus between A and B a minimum of 10mm of product has to be poured to get the floor to the level of the highs at A and B.

Fig. 2: must be applied where there are limitations in the final levels.

Fig. 3: must be applied where there is more room to build on the existing levels.

Since **TAL Screedmaster** is normally applied with an adjustable floor spreader or notched floor rake giving final thickness of 3 - 5mm it is thus important to ensure that the highs are ground down (Fig. 2) or the lows are filled up using **TAL Rapidfix** (Fig. 3), normally to the floor level (datum point), before applying the Screedmaster.

TAL Rapidfix should be applied as follows :

- Prime these areas with a slurry consisting of 1 part **TAL Floorkey** to 2 parts **TAL Rapidfix** (by volume), which is applied by block brush.
- Add 20kg **TAL Rapidfix** to no more than 5 litres of clean, cool water (or **TAL Screedbinder**) and mix until the desired trowelable paste is achieved, which must be lump-free and creamy. Do not mix up more than can be used in 20 minutes. Stir occasionally whilst in use. Apply the paste to the area using a steel trowel and work to a smooth level surface. **TAL Rapidfix** can be applied from 1mm up to 50mm in a single application
- Allow these areas to dry overnight before proceeding.

METHOD STATEMENT

TAL SCREEDMASTER

Revision Date: 20 December 2021

5. VOIDED JOINTS

5.1 Existing Joints

All Construction/Cold Joints in the substrate, as well as structural cracks that are or could become dynamic before and/or after the **TAL Screedmaster** installation, must be extended through to the surface of the **TAL Screedmaster** installation in the form of Voided Joints. All specially constructed Voided Joints (Including Structural) in the Substrate, must be filled with **TAL Sealmaster Cord** prior to the **TAL Screedmaster** application to prevent these joints from being filled with **TAL Screedmaster**. With regards to these Voided Joints already in the existing substrate, the full width of the joint should be maintained and extended through the **TAL Screedmaster** layer to the surface. These joints need to be aligned exactly. Relief/Saw Cut Joints in the existing substrate can only be filled with **TAL Screedmaster** if the substrate has not cracked in these areas. If these Relief/Saw Cut Joints have in fact cracked in these areas, then these Joints need to be respected as above.

5.2 New Joints

Should the **TAL Screedmaster** application thickness be 10mm or greater, provision (Soft board/Foam) to allow Voided Joints in the **TAL Screedmaster** installation should so be created around the perimeter of all floors, against obstructions fixed to the structural background, and around all protruding fixtures such as walls, columns and stairs prior to pouring the Compound. In this instance, Bay Divisions and Voided Construction Joints should also be incorporated in the **TAL Screedmaster** layer as for normal sand/cement screeds and toppings in accordance with the SANS Code of Practice *and in accordance with the Project / Site Engineer's recommendations*. These Voided Joints must extend from the Substrate through the **TAL Screedmaster** layer and must be a minimum of 3mm in width. Panels must be neatly defined and straight when being placed.

6. SUBSTRATE PRIMING

The floor must be thoroughly swept to remove all traces of dust and loose particles, taking care to remove the dust rather than redistribute it. (Vacuuming is preferred.)

The substrate must attain a moisture content of 5% (75% RH) or less before proceeding.

- **Woodfloated (rough, porous) Surfaces** - Prime the surface with 2 coats of **TAL Floor Primer**, ensuring that the entire surface is covered with the priming coat. The second coat must be applied in a cross-direction to the first coat, once the first coat has dried.

NOTE : Very porous floors may require more applications of **TAL Floor Primer**, and each coat should be applied in a cross-direction to the previous application once the previous coat is touch dry.

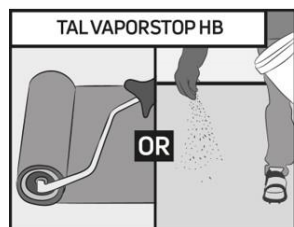
The **TAL Floor Primer** application must be allowed to cure for **12 hours** before the **TAL Screedmaster** installation is commenced.

- **Powerfloated / Steelfloated (smooth, dense) Surfaces** - Prime the surface with a slurry consisting of 1 part **TAL Floorkey** mixed with 2 parts **TAL Rapidfix** (by volume) which is applied by block brush, ensuring that the entire surface is covered with the slurry priming coat.

Once the **TAL Floorkey** slurry coat is dry and well anchored to the substrate, a coat of **TAL Floor Primer** must be applied.

The **TAL Floor Primer** application must be allowed to cure for 12 hours before the **TAL Screedmaster** installation is commenced.

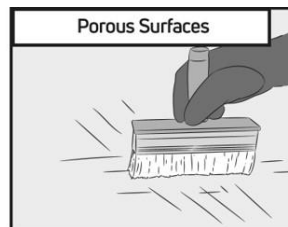
NOTE : Failure to allow the **TAL Floor Primer** coat to cure for **12 hours** will result in bubbles / pinholes forming in the **TAL Screedmaster** installation during the drying stage.



Apply TAL PRIMERCOAT according to the instructions

OR

Fully blind with TAL PRIMER AGGREGATE whilst the vapour barrier is still wet

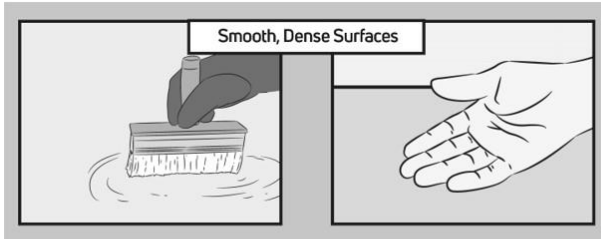


Prime with two coats of TAL FLOOR PRIMER applied using a builders block brush in cross directions. The 2nd coat must be applied once the first coat is dry. Very porous surfaces may require additional coats. Allow to cure for 12 hours.

METHOD STATEMENT

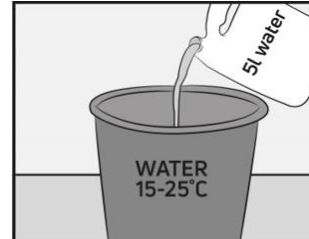
TAL SCREEDMASTER

Revision Date: 20 December 2021



Prime with a slurry consisting of 1 part TAL FLOORKEY mixed with 2 parts TAL RAPIDFIX (by volume). Ensure complete coverage.

Once the TAL FLOORKEY slurry coat is dry and well anchored to the substrate, a coat of TAL FLOOR PRIMER must be applied. Allow to cure for 12 hours.



Add exactly 5L of clean water to a large container for mixing. Ensure the water is between 15-25°

7. MIXING

TAL Screedmaster is suitable to be applied either manually or by use of a pump.

It is imperative that the water : powder mix ratio is strictly adhered to.

Manual Method

- The mixing and application processes should be continuous.
- Add 22kg TAL Screedmaster to exactly 5 litres of clean water while stirring slowly with an electric drill of minimum 1.8kW with a suitable mixing paddle attachment, and mix thoroughly for 5 minutes until a smooth, lump-free viscous liquid is obtained. Allow the mixture to stand for 3 minutes, then stir again (shear thinning). **The temperature of the water must be between 15 - 25°C when mixed with TAL Screedmaster.** Stir occasionally whilst in use.
- Do not mix up more than can be used in 30 – 50 minutes (Pot Life). For best results use a full bag in one mix.

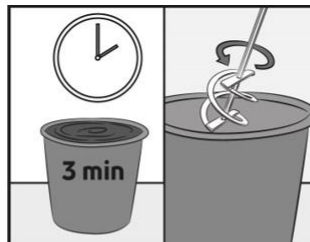
Pump Method

- Please refer to flooring contractor for mixing methods. (The temperature of the water must be between 15 - 25°C when mixed with TAL Screedmaster.)

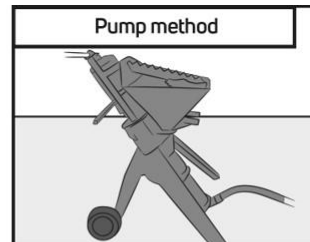
NB : Never add more liquid to a mix which has been left standing for too long (retempering) as this will compromise the integrity of the screed.



Mix 22kg TAL SCREEDMASTER to water while stirring slowly with an electric drill of minimum 1.8 kW with a suitable mixing paddle attachment. Mix thoroughly for 5 minutes until a smooth, lump-free, viscous liquid is obtained.



Allow the mixture to stand for 3 minutes, then stir again. Stir accordingly whilst in use. Do not mix up more than can be used in 30-50 minutes (pot life).



Please refer to Flooring Contractor for mixing methods.

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METHOD STATEMENT

TAL SCREEDMASTER

Revision Date: 20 December 2021

8. APPLICATION CONDITIONS

For optimum product performance the Slab, Water and Ambient Temperatures should be around 20°C. However, if this is not possible, the information below should be used as a guide for product installation :

- Ambient temperatures between 10°C - 30°C must be maintained throughout installation and curing.
- The Floor Slab must have a minimum temperature of 10°C during the **TAL Screedmaster** application.
- The temperature of the Water must be between 15 - 25°C when mixed with **TAL Screedmaster**.
- Low Floor Slab and/or Ambient Temperatures and Water Temperatures will affect the Setting Time (Very Low Temperatures, ie below 5°C, will considerably slow, or even halt, the curing process, until temperatures increase again).
- High Floor Slab and/or Ambient Temperatures and Water Temperatures will shorten the Working Time (Very High Temperatures may result in flash-setting of product).

Important:

Too-rapid drying from direct sunlight and/or drying air or winds during application, and within the first 48 hours of curing, will result in drying-shrinkage cracks forming in the self-levelling screed.

Ensure that all roofs are in place, all windows and doorways are suitably masked/covered, and that any air-conditioning units are not used.

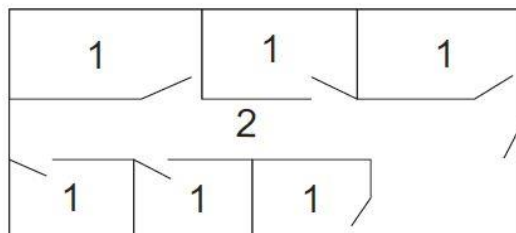
9. APPLICATION

Pour the mix onto the floor and spread with a **TAL Adjustable Floor Spreader** or **TAL Notched Floor Rake** to the required thickness. (The height adjustment of the **TAL Adjustable Floor Spreader** or notch of the **TAL Notched Floor Rake** will determine the thickness.)

Note : Experienced personnel normally use the **TAL Adjustable Floor Spreader**, which reduces the amount of work required in the preparation stage as, with the use of the Spreader, thicknesses above 10mm can be achieved in one application. The bubble bursting stage is eliminated in this case.

TAL Spiked Shoes must be worn during the installation. Roll the area using a **TAL Spiked Roller** to facilitate the release of any trapped air to produce a smooth surface, and allow to dry.

TAL Screedmaster can be applied from 3mm up to 16mm in a single operation. It is recommended to apply **TAL Screedmaster** in thicknesses exceeding 3mm to achieve optimum results. Clean tools immediately after use with clean, cool water. Ideally, all doors should be removed. Doorways should be blocked off with foam tape. It is normally recommended to apply **TAL Screedmaster** before skirting boards have been installed. If boards are in place already, these should be covered with masking tape to avoid staining with product.



Apply product starting with all rooms (1) and ending with the passages (2). Bigger rooms or areas could be subdivided into smaller areas using foam tape. This reduces the risk of cold joints. Once product has set, the foam tape should be removed and all channels left behind should be filled with **TAL Screedmaster**, and subsequently sanded down once set.

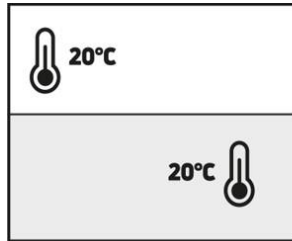
Note: Any lumps or unmixed product should be removed while product is still wet, normally done during the bubble bursting stage of the installation.

Should a further build be required, this can be done once the first application has cured for 24 hours. The surface must be primed with 2 liberal coats of **TAL Floor Primer**. The second coat must be applied in a cross-direction to the first coat once the first coat has cured. The **TAL Floor Primer** application must be allowed to cure for 12 HOURS before the next layer of **TAL Screedmaster** is applied.

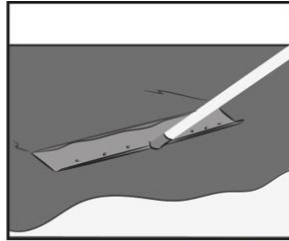
METHOD STATEMENT

TAL SCREEDMASTER

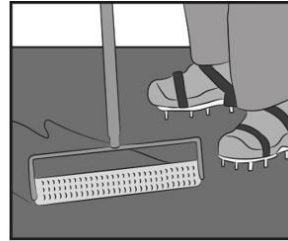
Revision Date: 20 December 2021



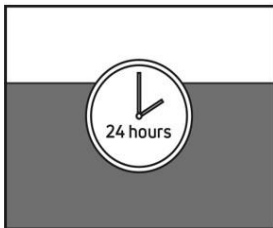
For optimum product performance the Slab and Ambient Temperatures should be around 20°C



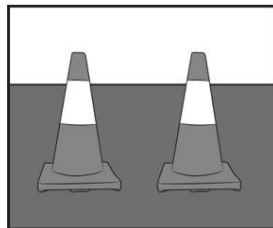
Pour onto the floor and spread with a TAL ADJUSTABLE FLOOR SPREADER or TAL NOTCHED FLOOR RAKE to the required thickness



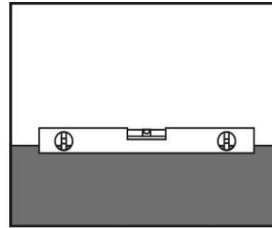
Wearing TAL SPIKED SHOES, roll the area using a TAL SPIKED ROLLER to release trapped air and to produce a smooth surface. Allow to dry.



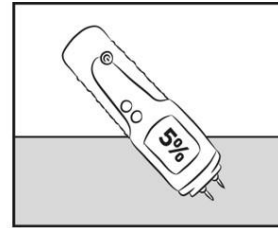
The floor can be walked on after 3 hours. Full cure after 24 hours depending on site & ambient conditions.



The installation must be protected from other trades until cured, and the floor covering is installed.



Conduct a further floor level survey.



Conduct further moisture testing, to ensure the moisture content is suitable for the installation of the selected floor covering. Less than 5% (75% RH) for tiles & carpets, less than 3% (50% RH) for vinyl & resin-based floor coverings.

10. DRYING TIMES & SURFACE FINISH

The TAL Screedmaster installation should be protected from building operations and other trades until fully cured. It should also be completely protected until fully covered with a suitable durable floor covering.

The floor must be left to cure for 24 hours, depending on site and ambient conditions. Before floor coverings are installed it is the Flooring Contractor's responsibility to :

- A) Thoroughly inspect the new **TAL Screedmaster** installation and confirm that it is integrally sound and does not show signs of Overwatering and Product Separation;
- B) Conduct a further Floor Level Survey on the floor using a 3m straight edge, as before. Any highs must be identified and removed by rubbing using a corundum stone. Any lows must be filled using **TAL Superscreed** mixed with **TAL Screedbinder** (replacing the water in the mix);
- C) Conduct Moisture Testing on the new surface prior to installing Vinyl or Resin floor coverings, as any moisture trapped below the Vinyl or Resin flooring may result in the installation 'bubbling'.

The new **TAL Screedmaster** surface must be thoroughly swept to remove all traces of dust and loose particles before installing any floor coverings. (Vacuuming is preferred.) Contamination on the substrate may have an adverse effect on both the finish and long term performance of the floor covering.

Variation in colour can occur due to the laying technique used (ie trowel marks and water marks).

TAL Screedmaster is suitable for fixing all floor coverings including semi and fully flexible vinyl tiles and sheeting, LVT's, carpeting, ceramic tiles, rubber and timber flooring, athletic flooring, etc.

METHOD STATEMENT

TAL SCREEDMASTER

Revision Date: 20 December 2021



11. APPROXIMATE COVERAGE

1.8kg / m² / 1mm thickness. (ie a 22kg bag mixed with 5 litres of water will cover approximately 5m² at a 3mm build).

NB : Actual coverages will be determined by site conditions, substrate profile and flatness, workmanship, etc.

12. CLEANING

Dry powder spillages – sweep off or vacuum powder spillages, ensuring reduced exposure to moisture which potentially activates the product.

Mixed product spillages – scrape up the mixed product, and wipe the surface with a damp sponge before the product dries.

Dry product - should be removed using **TAL Epoxy Cleaning Fluid** or **TAL Epoxy Cleaning Gel**.

Clean hands and tools with warm, soapy water before the product dries.

13. PACKAGING

22kg Bags

14. SHELF LIFE & STORAGE

12 months from date of manufacture when stored in the original unopened packaging in dry internal conditions between 10°C and 30°C and out of direct sunlight. **To protect from damp never store directly on a concrete floor.**

15. LIMITATIONS

Do not mix with more than 5 litres of water.

Never add more liquid to a mix which has been left standing for too long (retempering) as this will compromise the integrity of the screed.

Water temperature must be between 15 - 25°C.

Do not mix by hand.

Do not part mix; use only full bags.

Do not apply in wet conditions or at temperatures below 10°C.

Do not expose to running water or to service conditions until the product is cured fully.

TAL Screedmaster is only suitable for underlayment applications and should be covered with a durable floor covering once cured. TAL Superflow or TAL Stoneflow should be used if an overlayment / decorative screed finish is required.

TAL Screedmaster is not suitable for external or exposed installation areas.

16. HEALTH & SAFETY

This product is for use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. E-mail taltech@tal.co.za or call 0860 000 825 for a copy of the MSDS.

Do not inhale or ingest.

Keep out of reach of children.

Operatives should use barrier creams when handling cementitious materials. Care should be taken not to allow cementitious products to come into contact with skin.

Operatives should use the following Personal Protection Equipment :

- Eye protection (goggles)
- Gloves
- Dust Mask
- Rubber soled safety shoes
- Coveralls

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METHOD STATEMENT

TAL SCREEDMASTER

Revision Date: 20 December 2021



- Safety helmet

Work in well-ventilated areas.

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.

Dispose of this product in accordance with local regulations.

17. AUTHORIZED TECHNICAL SPECIALIST

Please note that only TAL Authorized Technical Specialists are permitted to change any of the information in this method statement or to provide written recommendations concerning the use of this product.

18. PRODUCT GUARANTEE

TAL products are manufactured and tested in accordance with TAL procedures, which are maintained in line with Quality Control System Standard ISO 9001:2015, OSHAS 45001:2018 and Environmental Management System ISO 14001:2018. 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 themselves that the product is suitable for the intended purpose. In special cases, obtain professional advice.

TAL shall not be liable for the standard of workmanship on site, or for any defects or damage due to external causes or factors beyond the control of TAL including, without limitation, unsound structures or foundations, building movement (cracking, creep, deflection, vibration, etc), design defects, earth tremor or other seismic disturbances, land slip, fire, flood or other immersion, damage to the installed floor by following trades or abusive trafficking, or any products which have been adulterated, contaminated or misused in any way. The list is not exhaustive.

NOTE: We require timeous notification, *in writing*, 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.