



PROFESSIONAL FLOORING PRODUCTS
FOR THE MASTER TRADESMAN

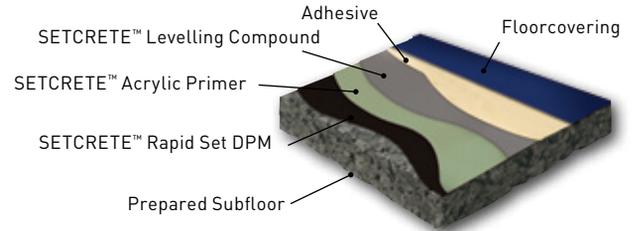
SETCRETE FLOORCOVERING INSTALLATION GUIDE



FLOORCOVERING INSTALLATION GUIDE

Surface preparation is a vital part of any flooring installation. Improper or inadequate preparation can cause premature failure of the system.

It is the intention of this Floorcovering Installation Guide to describe the different types of procedures available to produce the most acceptable substrate possible, ready for the installation of one or more of our products.



PREPARED SUBFLOOR

Prior to the application of any Setcrete Floor Preparation Product, ensure the subfloor is sound, clean, dry and free from contamination.

SETCRETE RAPID SET DPM

Setcrete Rapid Set DPM provides a barrier to residual construction moisture and rising damp, preventing moisture from adversely affecting subsequent floorcovering installations.

SETCRETE ACRYLIC PRIMER

Must be used in most circumstances to gain good adhesion to the subfloor and also to prevent the unacceptable rapid drying of the floor levelling compound. It is not always necessary to prime when applying Setcrete 2K PRO Floor Levelling Compound.

SETCRETE LEVELLING COMPOUND

Select the correct Setcrete Floor Levelling Compound based on the substrate, depth required, time sensitivity, type of decorative floorcovering to be installed and potential floor traffic that the surface is likely to be subject to.

ADHESIVE & FLOORCOVERING

Choose the appropriate adhesive dependent on the floorcovering to be applied. For wood flooring installations use Setcrete Flexible Wood Flooring Adhesive where applicable.

FLOOR TYPES

FLOOR CONDITION



Prior to the application of any Setcrete Floor Levelling Compounds, ensure the subfloor is sound, clean and dry. Setcrete Floor Levelling Compounds are suitable for internal application only.

Please consult Setcrete Technical Service Department on 01538 361 633 for further information.

ASPHALT

The asphalt must be flooring grade, comply with the requirements of BS 8204 and be the correct grade for its service condition. Providing the flooring grade asphalt is in good condition, sound, strong, has not suffered rutting or any sign of softening and is free from any form of contamination, the surface should be cleaned with an appropriate floor cleaner, rinsed with clean water and allowed to dry.

Floors must be primed with neat Setcrete Acrylic Primer to ensure good adhesion between levelling compound and substrate.

ADHESIVE RESIDUES

Setcrete 2K Pro is suitable for direct application over old adhesive residues (including bitumen and carpet tile tackifiers). It can be applied without the need for priming providing there is an effective damp proof membrane present and the adhesive residue is not water softenable and is firmly bonded. If an alternative Setcrete Floor Levelling Compound is to be applied, all adhesive residues must be removed by mechanical methods such as scraping, shot/grit blasting or grinding. The area should then be primed with Setcrete Acrylic Primer prior to the application of the appropriate floor levelling compound.

FLOOR TYPES

SAND/CEMENT OR CALCIUM SULPHATE/ANHYDRITE SCREEDS

Sand/cement or calcium sulphate (eg anhydrite) screeds must be fully cured and any laitance or surface treatments must be removed. The floor temperature must be maintained above 5°C throughout the application and drying of the levelling compound.

Underfloor heating must be switched off for at least 48 hours before, during and after application. Subfloors must incorporate an effective damp proof membrane and conform to the requirements of all relevant British Standards for the chosen flooring installation.

Sufficiently dry subfloors must be primed with Setcrete Acrylic Primer, diluted with 4 parts water, to ensure good adhesion between the levelling compound and substrate, to give a higher quality finish and prevent pinholing or unacceptable rapid drying of the levelling compound.



FLOOR TYPES

PAINT SURFACES

Traditional floor paints such as those based on oil or acrylic emulsions should be totally removed. Epoxy or polyurethane paints can be overcoated providing they are in good condition and well adhered to the substrate. Coatings vary considerably in this respect and we would suggest you check adhesion by prior testing to ensure a satisfactory bond is achieved.

The coating should be cleaned using an appropriate floor cleaner and allowed to dry. However, in the majority of cases identifying the type of paint or coating will be difficult and it is most likely it will be brittle, worn, peeling or flaking off the substrate and is therefore not good enough to receive a floor levelling compound. The easiest method of removing old paint is usually contained shot blasting.

CERAMIC, TERRAZZO & QUARRY TILES

Providing these are sound and well bonded to a solid base with no cracks or lipped tiles present, all surfaces must be cleaned to remove all traces of contamination such as polish etc. Grout lines need to be lightly raked with any resulting debris removed. The floor must then be primed with neat Setcrete Acrylic Primer to ensure good adhesion between levelling compound and substrate.

Glazed or heavily contaminated surfaces should be mechanically prepared by shot blasting, or grinding with a coarse abrasive to aid adhesion before priming with neat Setcrete Acrylic Primer, ensuring the tiles remain well bonded.

Allow the primer to dry then apply the appropriate Setcrete Floor Levelling Compound. Where Setcrete 2K PRO is to be applied, priming is not always necessary.

FLOOR TYPES

WOODEN FLOORS

All wooden floors must be structurally sound, level, dry, secure and clean. Adequate under floor ventilation should be provided to suspended timber floors at ground floor level to ensure that the moisture content of the wood is maintained at equilibrium. Worn or uneven floorboards should either be replaced or levelled by sanding, planing or by patch filling before finally covering with (a minimum of 6mm) flooring grade plywood – meeting EN314-2 Class 3. Sheets should be positioned, with joints staggered and secured at 100 – 150mm centres. (See BS 5325 and BS 8203 for details).

Wood blocks laid on ground floors must have an effective damp proof membrane incorporated in the subfloor. They may be overlaid with a suitable grade of (6mm) plywood – meeting EN314-2 Class 3, screw fixed at the centres outlined in BS 5325 and BS 8203. However, it must be ensured that the wood blocks are well bonded and remain fully secured to the subfloor and that the plywood overlay and wood blocks remain dry during the life of the installation. If these conditions cannot be met, then the wood blocks must be removed, along with the adhesive, and the subfloor made good with Setcrete Rapid Set DPM.

Apply neat Setcrete Acrylic Primer to the DPM and allow to dry prior to application of the appropriate Setcrete Floor Levelling Compound.



Wooden floorboards including butt jointed and flooring grade tongue and groove boards must be overlaid with a minimum of 6mm plywood, screw fixed at the centres outlined in BS 5325 and BS 8203 to provide a rigid substrate. They must then be primed with Setcrete Acrylic Primer, diluted with 4 parts water, to ensure good adhesion between levelling compound and substrate and give a higher quality finish, preventing pinholing and rapid drying of the levelling compound. Setcrete High Performance Floor Levelling Compound can now be applied.

Wood mosaic panels require overpinning with flooring grade plywood in all cases. This is not practical on solid floors and panels should therefore be removed and prepared as per sand/cement or calcium sulphate screeds. In all other respects wood mosaic panels should be treated as for wood block.

OTHER FLOOR TYPES

For all other floor types please contact the Setcrete Technical Department on **01538 361 633**



STEP 1 – CHECK IT

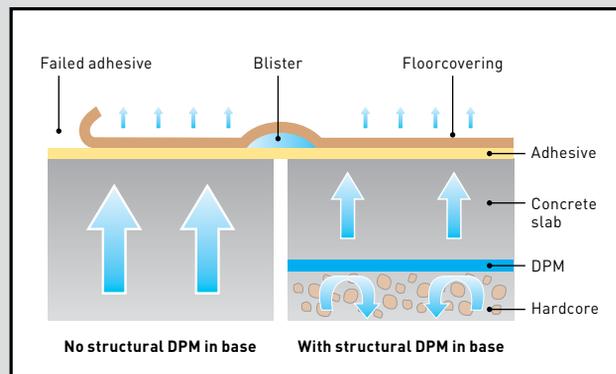
Undertake an initial test for the presence of moisture in the subfloor using a radio frequency moisture meter such as the Protimeter MMS2 or Protimeter Aquant™. If moisture is present, investigate further.



WHAT IS THE PROBLEM?

It was only in 1965 that it became mandatory to install a Damp Proof Membrane (DPM) in new buildings. Where there is no DPM or in cases where the DPM has failed, moisture can rise into the slab from the ground. In cases of new construction the slab itself will contain a considerable amount of residual moisture and although this will generally reduce with time, dependent on environmental conditions, this can cause a significant delay to building occupancy. There are of course, other circumstances where a floor slab may temporarily absorb water, after a flood, broken pipe etc.

In any circumstance where the floor slab contains significant amounts of moisture, if floorcoverings are installed without precautions being taken, the floorcovering will reduce moisture release thereby trapping moisture under the covering with the

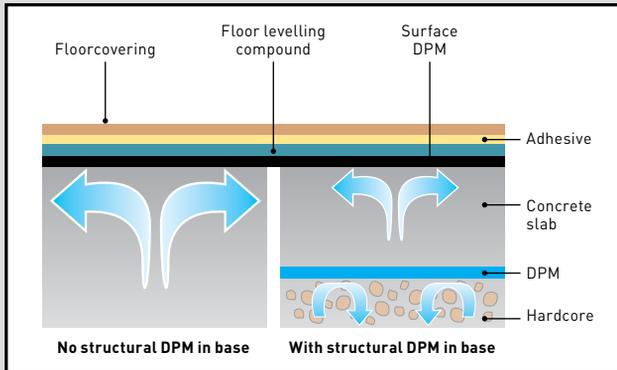


Floorcovering traps moisture release causing blisters or damage to adhesive layer allowing floorcovering to lift

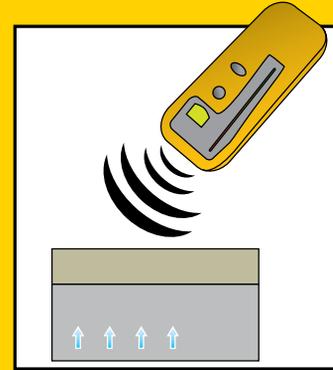
potential to cause blisters or even failure of the adhesive. When problems like this occur (after floorcovering installation) there is no 'quick fix' other than to undertake an expensive rip out, then to either let the floor dry or install a Surface Damp Proof Membrane and install a new floorcovering.

The difficulty is that moisture is not always visible and estimates of drying times can be very inaccurate. The best estimate of how long a floor takes to dry to an acceptable level of 75% RH is at a rate equivalent to 1 day per 1mm of subfloor thickness up to 50mm.

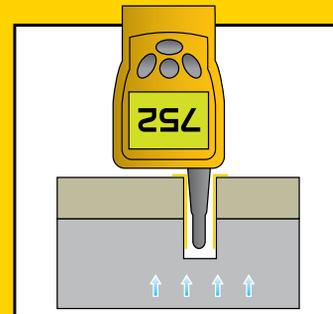
So typically a new 50mm thick screed will take at least 50 days to dry. Thicker floors can dry at an even slower rate than that. Given the financial pressure to occupy a building the temptation is to take a risk and proceed with installing the floorcovering – however, the costs of getting this wrong can be substantial, not only in wasted material but because occupancy may be even further delayed while remedial action is taken.



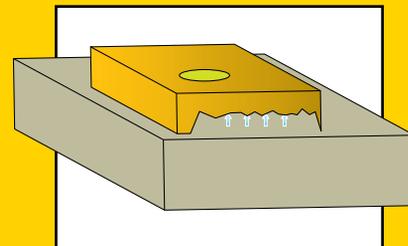
Surface Damp Proof Membrane controls moisture release and allows floorcovering to be installed



Radio meters detect the presence of moisture



Moisture probes measure humidity within the slab



Digital hygrometers are sealed to the slab and accurately measure relative humidity

STEP 2 – MEASURE IT

Confirm and accurately measure the moisture levels present using a DIGITAL HYGROMETER. If the relative humidity is below 75%* it is safe to proceed with fitting most floorcoverings. If above 75% RH go to step 3.



HOW CAN YOU TELL IF IT IS SAFE TO PROCEED WITH INSTALLING A FLOORCOVERING?

Where there is a suspicion that the floor may contain moisture, this needs to be carefully checked – visual inspection is inadequate as what may appear dry on the surface may conceal retained moisture that is being slowly released.

Firstly the presence or absence of moisture can be checked easily using a radio frequency moisture meter such as the Protimeter AQUANT™ or Protimeter MMS2*. These devices are quick and easy to use and give instant readings that indicate whether moisture is present or not.

If no moisture is present then the flooring installation can proceed, but if there is an indication of moisture presence, then this needs further investigation.

Measurements need to be made at a number of points across the floor and over a period of time to allow measurement of moisture release from the slab. Traditionally such measurements have been undertaken using a hair hygrometer that itself required careful calibration immediately prior to use. This method has now been superseded by the pre-calibrated Digital Hygrometer* which is temporarily sealed to the floor surface for a minimum period of 4 hours and gives a direct read out of the relative humidity of the floor. Thicker power floated slabs will take longer.

An alternative measurement method is to utilise a Protimeter MMS2* in conjunction either with humidity boxes (similar to those used with the digital hygrometer) or using moisture probes that are inserted into pre-drilled holes in the slab.

Where Relative Humidity (RH) levels are measured at below 75%**, flooring may proceed without further treatment. At levels over 75% further treatment is required.

*For detailed operating instructions and information on how to interpret results please see the relevant product data sheets and operating instructions.

**For wood floors Setcrete recommend a maximum of 65% RH. Consult wood floor manufacturer.

STEP 3 – SOLVE IT

If relative humidity is above 75% treatment is required. Setcrete recommend the application of Setcrete Rapid Set DPM.



SOLVE THE PROBLEM WITH A WATERPROOF SURFACE MEMBRANE

A Surface Damp Proof Membrane (DPM) is designed to control water vapour transmission. DPM's are typically formed by applying an Epoxy Resin which bonds to the floor surface to create a waterproof layer.

The appropriate treatment depends on the Relative Humidity (RH) of the floor:

Setcrete Rapid Set DPM has been specifically developed to provide a moisture solution for Relative Humidity (RH) values up to 98%. Please refer to the products technical data sheet or contact Technical Service for advice.

If there is no DPM or the DPM is damaged, the application of Setcrete Rapid Set DPM is recommended.

For installations where speed is important, Setcrete Rapid Set DPM can cure in as little as 3 hours at 20°C.



MOISTURE MEASUREMENT & CONTROL

A SURFACE DAMP PROOF MEMBRANE (DPM) IS DESIGNED TO CONTROL WATER VAPOUR TRANSMISSION

WHAT IF THERE ARE OTHER PROBLEMS?

If the floor suffers from other problems in addition to moisture, these can generally be overcome by using one of Setcrete's specialist range of floor levelling compounds in conjunction with the DPM.

For example:

- Setcrete 2K PRO floor levelling compound can be used to level damp, uneven subfloors prior to the application of Setcrete Rapid Set DPM.
- When time is important, Setcrete Rapid Set 30 can be used over Setcrete Rapid Set DPM. Setcrete Rapid Set 30's unique rapid setting, rapid drying technology allows the floor to be smoothed and levelled and is ready to receive new floorcoverings from 45 minutes.

For details of other products that can be used in conjunction with DPM's please contact Setcrete's Technical Service Department, view the website on-line at www.setcrete.co.uk or see individual product data sheets.

ADHESIVE RECOMMENDATIONS

The F. Ball Recommended Adhesives Guide provides recommendations for around 5,500 floorcoverings from over 200 leading floorcovering manufacturers. To see the complete listing, please visit www.f-ball.co.uk

Floorcovering Trade Mark	Backing	Type of Bond	
		Permanent	Heavy Duty/ Wet Areas
Tarkett Tapiflex Essential 50	Vinyl	F45/F46	F74
Tarkett Vylon Plus Tile	Vinyl	F45/F46	F74
Polyflor Polysafe Hydro	Vinyl to EN649	-	F74/F84
Polyflor Polysafe Mosaic PUR	Vinyl to EN649	F44/F45	F74/F84
Polyflor Polyflex Plus PU	Vinyl to EN649	F44/F46	-
Polyflor Camero PU	Vinyl to EN649	F46	F74



Please note: All adhesive recommendations are published with the expressed approval of the manufacturers listed.



SETCRETE™ Floor Levelling Product Selector

	UNIVERSAL	LATEX	DEEP BASE	HIGH PERFORMANCE	RAPID SET	2K PRO
General/ Light-Duty Areas	✓	✓	✓	✓	✓	✓
Medium-Duty Areas		✓	✓	✓	✓	✓
Conservatories/ Heavy-Duty Areas			✓	✓	✓	✓
Over Plywood				✓		
Over Adhesive Residues						✓
Application Thickness (mm)	3-6	2-10	5-50	2-15*	2-10	2-30**

* Minimum 5mm when used as a wearing surface/Maximum 10mm when used on plywood.

** Filled mix above 10mm

FOR FURTHER ADVICE OR INFORMATION, PLEASE CONTACT:

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