

TECHNICAL BULLETIN No. 34

DESCRIPTION

This Technical Bulletin describes the procedures and methods to be used when removing or ripping-up old flooring in order to install a new floor.

1. INTRODUCTION

In removing or ripping up an old floor, the most crucial factor is to ensure that the sub-floor is restored to a condition normally acceptable for the laying of new flooring, i.e. clean, free from dust, oil, grease, wax; and uncontaminated by old adhesive residue. It is imperative that all old adhesive is removed from the sub-floor before installing any new flooring. Although there are no easy methods of removing adhesives, many of the effective procedures involve the use of either solvent based strippers - which are often hazardous and generally non-green compliant, scabbling - a mechanical process of removing a thin layer of concrete from a structure typically achieved by compressed air powered machines, or scarifying - a milling machine action with multi-tipped cutting wheels or flails that rotate at high speed.

2. RIPPING UP

In ripping up old flooring the removal of the remaining adhesive is normally the most critical area and sometimes the only safe method is to entirely remove the old screed and put in a new topping, preferably a reputable self-leveller. Partially removing residual adhesive and then applying a thin layer of smoothing compound is not good flooring practice, as the bond between the smoothing compound and the old adhesive could be compromised, and any replacement flooring installed will probably lift or fail within a short period.

3. ADHESIVE REMOVAL

The most effective method of removing old adhesive from the sub-floor is by using solvent-based adhesive strippers. Apart from the danger factors of the solvents in strippers, it should be noted that all these solvents have an adverse effect on adhesives and *FloorworX Floorings*. The adhesive removal procedure given below in 3.1 is suitable for use on acrylic, rubber emulsion and contact adhesive residues. For other adhesives such as bitumen, polyurethane and epoxy refer to 3.2 below.

3.1. ADHESIVE REMOVAL PROCEDURES USING SOLVENTS

- 3.1.1 Apply the stripper to the adhesive on the sub-floor and cover with polyethylene sheeting.
- 3.1.2 Allow 10 to 15 minutes for the stripper to soak in and soften the adhesive.
- 3.1.3 Scrape the adhesive residue off the sub-floor.
- 3.1.4 Allow a minimum of 24 hours for the solvents to evaporate from the sub-floor. Any solvent remaining in the sub-floor will adversely affect both the new adhesive and the flooring with disastrous consequences.
- 3.1.5 Scrub the floor using a neutral detergent solution.
- 3.1.6 Thoroughly rinse the sub-floor twice with clean water to remove all traces of any detergent.
- 3.1.7 Allow the sub-floor to dry thoroughly.
- 3.1.8 Test the sub-floor for dryness by using a suitably approved Concrete Moisture Meter. (*Tramex CME 4, Caisson VI-D4 Pinless Concrete Moisture Meter, GE Protimeter Mini or a Hygrometer*).

See FloorworX Technical Bulletin No. 30: Moisture in Sub-Floors and Damp-Proof Membranes.

- 3.1.9 Re-laying the new floor.

See FloorworX Technical Bulletin No. 35: FloorworX Flooring Adhesives and their Applications.

 **IMPORTANT NOTE:** Do not lay any homogenous, heterogeneous, rubber or linoleum type floor coverings if bitumen adhesive had been used to bond the original floor, UNLESS ALL traces of the old adhesive have been completely removed, and the sub-floor restored to an acceptable finish in accordance with the correct procedures as prescribed. Failure to observe this rule will result in disastrous consequences.

3.2 ADHESIVE REMOVAL PROCEDURES BY MECHANICAL MEANS

- 3.2.1 It is recommended that a person who is qualified or experienced in cementitious finishers be consulted on this matter prior to pursuing this as an option, as it does carry a certain degree of risk.
- 3.2.2 It is highly recommended that this approach once adopted, be carried out by contractor who is capable and qualified to undertake this scope of works.
- 3.2.3 The floor then needs to be mechanically prepared either by scarifying and then diamond grinding, or just diamond grinding the substrate to ensure it is smooth and free from defect.
- 3.2.4 Once complete, it may be necessary to apply a reliable moisture barrier in order to prevent any moisture leaching the surface as this will impact negatively on the adhesive and the new floor covering.
- 3.2.5 Once the moisture barrier has cured then a reliable self-levelling compound can be applied to the surface and left to cure.
- 3.2.6 **Note all points as stated in 3.2 to 3.2.5 above are not our area of expertise therefore it is strongly recommended that all products and processes adopted are applied strictly in accordance with the respective manufactures policies and procedures for carrying out the referred scope of works.**

4. SUSPENDED WOODEN STRIP FLOORS

It is generally not good flooring practice to overlay on wooden strip floors, however if the floor is properly prepared in accordance with the correct procedures applicable to wooden strip floors, thereby mitigating risk, then a floor covering may be installed. It is however important to note that the strip floor is adequately ventilated, as this plays a critical role in the success of a new installation.

5. MOSAIC & PARQUET WOOD BLOCK FLOORING

These types of wooden floor should never be overlaid with any homogenous, heterogeneous, rubber or linoleum type floor coverings.

6. CARPETS & CARPET ADHESIVES ON CONCRETE SUB-FLOORS

Once the carpet has been ripped up, any remaining patches of adhesive should be removed either by scraping or using a sanding machine. In cases where a tacky adhesive, such as a rubber emulsion has been used, the procedure as described in Section 3.1 should be followed.

7. PRECAUTIONS WHEN HANDLING STRIPPERS

- 7.1 Ensure at all times that the manufacturer's instructions are followed.
- 7.2 Adhesive strippers contain solvents which are not only flammable, but are also hazardous, some solvents being carcinogenic.
- 7.3 Ensure that the work area is well ventilated and clearly marked with the necessary hazard signage.
- 7.4 Do not use strippers in the vicinity of naked flames, sparks or non-flameproof electrical apparatus.
- 7.5 Do not weld or cut with cutting torches any empty drums which have been used to store solvent-based products.
- 7.6 Store drums containing solvent-based products in a cool, safe and well ventilated area.
- 7.7 Do not inhale the solvent fumes.
- 7.8 Be aware of the hazards in allowing solvent fumes into electrical ventilation systems.
- 7.9 Any injuries caused by solvents or strippers must receive immediate medical attention.

 For more information please contact the **FloorworX TECHNICAL DEPARTMENT** by sending your query to technical@floorworx.co.za