

TECHNICAL BULLETIN

APPLICATIONS FOR DUNLOP TIMBER FLOOR LEVELLER AND DUNLOP FLOOR REPAIRER RAPID PATCH ON DRY INTERNAL TIMBER SURFACES & UNDERLAY SHEETS

INTRODUCTION & SCOPE

One of the most common problems in renovation and remodelling of existing buildings is the levelling and smoothing of wooden subfloors to receive hard floor coverings, floating floors, and carpet.

Wooden floors are often rough and uneven, with vertical deviations from zero to several centimetres in three metres. Installing a hardboard, fibre cement, or MDF underlay sheet over rough/uneven timber will often result in disintegration of underlay and floor coverings when exposed to traffic stress. It is also not acceptable to install resilient flooring (vinyl) directly over particleboard floors.

SOLUTIONS

The following Dunlop smoothing cement applications can be used for vinyl, hard floor coverings-ceramics, floating floors and carpet to provide a smooth and level surface.

OPTION 1

DUNLOP TIMBER FLOOR LEVELLER FLOOD COATING DIRECT BONDED TO TIMBER .

This system is suitable for strip tongue & groove timber (T&G), particleboard and flooring grade plywood.

Pre-levelling/smoothing/patching of the wooden flooring using TIMBER FLOOR LEVELLER can provide a flat durable surface. TIMBER FLOOR LEVELLER can be featheredged to meet existing floor heights.

Floor coverings can be direct applied to the TIMBER FLOOR LEVELLER , or underlay boards can be laid **over** pre-levelled/smoothed/patched area and over lapped onto existing timber flooring to provide the one flooring elevation.

OPTION 2

DUNLOP TIMBER FLOOR LEVELLER USED A PATCH WITH FIBRE-CEMENT SHEET, HARDBOARD OR MDF UNDERLAY SHEETS

Depressions in the floor can be filled with DUNLOP TIMBER FLOOR LEVELLER and then over sheeted with underlay to provide a rigid and flat surface.

This is the *preferred method for installation of ceramic tiles* to minimise the risk grout cracking. We do not recommend pouring liquid smoothing cements over fibre-cement sheets such as Vinyl and Cork Underlay or Ceramic Tile Underlay that has been fixed to timber floors.

Refer to the adhesive and floor covering manufacturer's advice for application over wood based underlays.

OPTION 3

DUNLOP FLOOR REPAIRER RAPID PATCH AS A SKIM COAT

DUNLOP FLOOR REPAIRER RAPID PATCH can be used on closely fitted fibre-cement underlay and plywood flooring to fill in grooves, gouges, level up joints etc., and allows for the fast installation of floor coverings.

Please note that joints of particle board or plywood flooring may show through and that vinyl can be damaged or distorted if particle board or plywood flooring expands or contracts. Application of DUNLOP FLOOR REPAIRER RAPID PATCH over T&G board flooring is not recommended.

NOTE

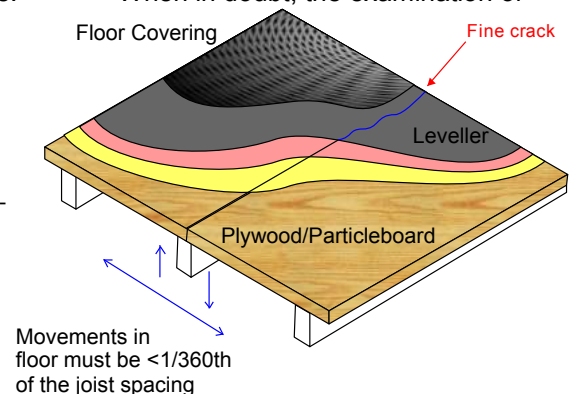
DUNLOP ARDIT FLOOR LEVELLER and DUNLOP MULTIPURPOSE FLOOR LEVELLER are NOT suitable for timber floor applications of any sort.

SUBSTRATE PREPARATION

Particleboard/plywood flooring may be coated with a resin waterproof protective layer. This resin layer may act as a bond breaker to applied finishes and should be removed by sanding.

The wooden subfloors must be clean and free of oil, grease, wax etc. The subfloor should be solid and fixed to provide a rigid base, with deflections less than $1/360^{\text{th}}$ of the span distance of the floor joints. Any boards exhibiting movement should be re-nailed and open joints should be filled with a suitable fast setting mortar.

When in doubt, the examination of



Excessive deflections in the floor can lead to cracking at the sheet joints. This won't effect carpets, but can lead to show-through for vinyl flooring.

the subfloor is a professional evaluation by a contractor or building consultant and is most important.

Sand the wooden subfloor, using a coarse abrasive, to remove all foreign matter and to provide a mechanical surface for the installation of the smoothing cement.

Subfloor shall be vacuumed to remove any dust or sanding debris.

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The attached photo is particleboard flooring sanded with 36 grit abrasive to produce a suitable textured profile clean of surface waxes and contaminants.

Ensure that there is adequate cross-flow ventilation and that the minimum height clearance between earth and the timber flooring, in accordance with local standards (AS1884 or NZS/AS1884) are maintained. Failure to have adequate ventilation can result moisture build up under the subfloor which can result in excessive floor deformation, mould growth or moisture permeation through the underlayment which

can result in blistering of sheet vinyl.

PRIMING FOR DUNLOP TIMBER FLOOR LEVELLER

Prime the wood subfloor with the DUNLOP primer supplied in the TIMBER FLOOR LEVELLER kit in accordance with printed technical data.

Drying time is a minimum of 30 minutes (@ 23 degC), but cold weather can lengthen this.

Primed surfaces should not be left open for more than 24 hours without re-coating.

INSTALLATION OF DUNLOP TIMBER FLOOR LEVELLER

OPTION 1

DUNLOP TIMBER FLOOR LEVELLER FLOOD COATING DIRECT BONDED TO TIMBER.

Install TIMBER FLOOR LEVELLER as per the printed technical data sheet, allowing the TIMBER FLOOR LEVELLER to dry completely prior to installing flooring. This is typically around 24hrs, and can be extended at lower temperatures and high humidity

For thickness over 8mm, the minimum recommended temperature is 15-16 deg.C.

Where underlay sheets are to be applied over the TIMBER FLOOR LEVELLER, The underlay sheet must be secured to the wooden floor, using nails or sufficient length to penetrate through the TIMBER FLOOR LEVELLER and lock into the wooden subfloor (see attached diagram). These nails should penetrate through the timber sheeting.

OPTION 2

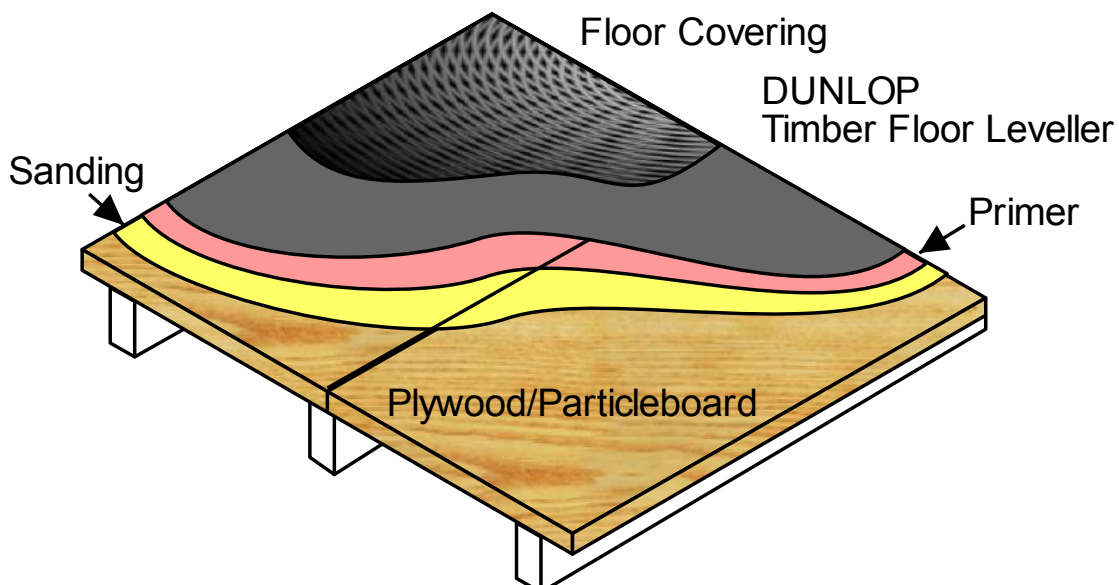
DUNLOP TIMBER FLOOR LEVELLER AS A PATCH AND DEPRESSION FILLER WITH FIBRE-CEMENT UNDERLAY SHEETING.

All depressions and undulations to be filled with TIMBER FLOOR LEVELLER.

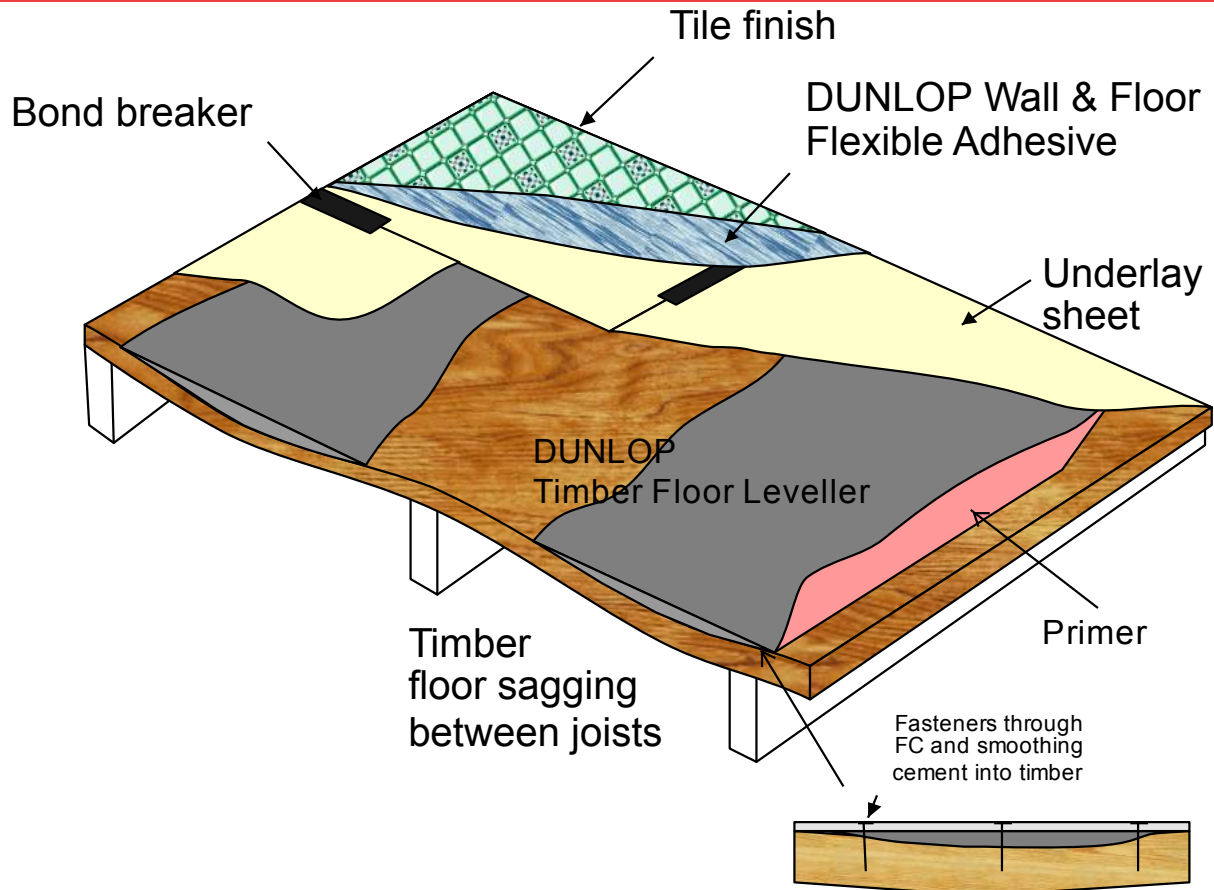
Allow the TIMBER FLOOR LEVELLER to harden to walkability (2-4 hours). Install the fibre-cement underlay sheets as per manufacturers written instructions.

Install hardboard and MDF sheets as below. Avoid joins of the underlayment sheets over any TIMBER FLOOR LEVELLER patched area.

The underlay sheet must be secured to the wooden floor, using nails or sufficient length to penetrate through the TIMBER FLOOR LEVELLER and lock into the wooden subfloor (see dia-



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gram above). These nails should penetrate through the timber sheeting.

Touch up and fine finishing of fibre-cement underlay sheets can be achieved using DUNLOP FLOOR REPAIRER RAPID PATCH.

OPTION 3

DUNLOP FLOOR REPAIRER RAPID PATCH AS A SKIM COATING.

For skim coating, DUNLOP FLOOR REPAIRER RAPID PATCH can be installed from a true featheredge to 3mm thick as a thin coat.

Apply the mixed DUNLOP FLOOR REPAIRER RAPID PATCH to the clean substrate with a steel trowel. Fill all defects in the surface completely and apply sufficient pressure to the trowel to feather the product into the existing surface.

As soon as the DUNLOP FLOOR REPAIRER RAPID PATCH can be walked on without damaging the surface (in as little as 15 – 20 minutes) sheet vinyl or vinyl tile sheet and carpeting can be installed.

FLOORING ADHESIVES AND TILING

For resilient flooring it is recommended that DUNLOP VINYL ADHESIVE is used for resilient sheet flooring, VCT and vinyl planks respectively.

For textile floor coverings the recommended adhesive would be DUNLOP CARPET TILE ADHESIVE or DUNLOP CARPET & CORK ADHESIVE.

For PVC or vinyl backed carpet tiles and carpet underlay DUNLOP VINYL ADHESIVE is recommended.

For ceramic tiles, the recommended adhesive is DUNLOP WALL AND FLOOR FLEXIBLE TILE ADHESIVE. The

grout recommended is DUNLOP FLEXIBLE COLOURED GROUT with DUNLOP PRIMER AND ADDITIVE.

NOTES

Always refer to the product data sheets for specific usage details.

The information contained herein is to the best of our knowledge true and accurate.

No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product application.

Users are asked to check that the literature in their possession is the latest issue.

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GLOSSARY

Australian and New Zealand Standards

AS1884-2012 and NZS/AS1884-2013 Floor coverings - Resilient sheet and tiles - Installation practices.

AS3958-2007 Guide to the installation of ceramic tiles

Bond Breaker-A bond breaker is the layer of separator substance applied in different forms between adjoining solid surfaces. It is used to ensure that there is no adhesive bond between the surfaces

Ceramic Tile Underlay-A type of 5.5-6mm thick fibre-cement sheet underlay placed onto timber floors before installation of ceramic tiles.

Featheredge(d)-When smoothing cements are wedged down to a very thin thickness at the edges to blend in the surrounding surfaces.

Fibre-cement (sheet) - Sheetting typically 4-12mm thick manufactured from cement, ground sand and cellulosic fibre re-inforcement. These sheets are NOT compressed normally, and this material is not an acceptable base for liquid smoothing cements. See Vinyl & Cork and also Ceramic Tile Underlay.

Flooring grade plywood- This is plywood which is categorised as being suitable to use for flooring purposes by AS/NZS 1170.1-2004.

Hardboard-A type of thin floor sheeting around 3-5mm thick that is made from hardwood timber chips bonded together with an adhesive.

The most common tradename for this type of sheeting was Masonite. This material is not an acceptable base for liquid smoothing cements.

Hard Floor Coverings-A description for ceramic and stone tiles. Can also loosely be used for floating timber floors.

MDF- Medium Density Fibreboard is a resin bonded timber particle underlay material with properties of the same type as hardboard. This material is not an acceptable base for liquid smoothing cements.

Particleboard flooring- A type of wood based floor sheeting made from wood chipping and bound together with a resin. The sheets are quite dense and can have waxy coatings, and termite treatments. Thickness ranges from 19-25mm. Includes generic/trade names such as Yellow Tongue, Red Tongue, Blue Tongue and Orange Tongue flooring.

The resilient flooring standard AS1884-2012 states that;

3.2.6.5 Particleboard subfloors

Resilient flooring shall not be adhered directly to particleboard subfloors. If the resilient flooring is to be adhered an underlay or underlayment shall be used.

Smoothing cement-A cement based material used for smoothing and flattening a floor. Also called levelling cement, levelling compound, self smoothing cement, floor levelling cement and self levelling cement.

Tongue & Groove Timber Flooring-Dunlop uses this term to refer to the old style strip timber floor boards, typically 90-150mm wide. However it is also loosely used to describe plywood and particleboard sheet flooring which have a plastic edge tongue and a rebate. Often shortened to T&G.

Underlay-This is the standard name in AS1884 for sheets used floor coverings. Includes hardboard, MDF sheet and fibre-cement sheet.

Underlayment-This is the standard name in AS1884 for smoothing cements. It is synonymous with levelling cement, levelling compound, smoothing cement, floor levelling cement and self levelling cement.

VCT-Shorthand abbreviation for vinyl composite tiles.

Vinyl & Cork Underlay-A type of 5.5-6mm thick fibre-cement sheet underlay placed onto timber floors before installation of vinyl and cork flooring.