



F. Ball and Co. Ltd.

[PRODUCT PROFILE]

wood floor installation range



A range of subfloor preparation products and adhesives for wood floor specialists

Subfloor preparation

The essential steps to ensure successful wood floor installation

Wood has the ability to absorb and shed moisture contained within the atmosphere. This means moisture within the air can lead to the expansion and contraction of the wood as moisture levels vary. This movement can put extreme stresses on the subfloor and it is important that the materials used for installation have high performance properties to cater for this.

Correct subfloor preparation and selection of installation materials is essential to the longevity and problem free life of the wood floor. Installation should be in accordance with BS 8201 Installation of Wood Panel Products.

The step-by-step guide below is designed to help achieve successful wood floor installations.

1. Substrate Quality

Most substrates will comprise of concrete, sand/cement screed or plywood. These should be sound, clean and permanently dry. However, it is common for these surfaces to be contaminated with laitance or old adhesive residues, which must be removed. All substrates must be suitably prepared prior to the installation of a wood floor.

2. Substrate Moisture

Moisture is by far the biggest cause of failure within wood floor installations. Moisture may be present in substrates and checks should be made to ensure an adequate damp proof membrane is in place. Moisture readings should be taken with a hygrometer and F. Ball and Co. Ltd. would always recommend a Relative Humidity reading of 65% or less, however, wood suppliers should also be consulted. We would also advocate the use of a waterproof surface membrane such as Stopgap F75 or F76 prior to the application of a levelling compound.

3. Levelling Uneven Subfloors

BS 8201 stipulates that the surface onto which the wood is to be laid must be level. Laying onto an uneven subfloor will result in points of weakness which will reduce the bond strength, due to poor adhesive transfer to the back of the timber potentially leading to floor failure. As it can be difficult to maintain surface regularity we would suggest that wood plank floorcoverings do not exceed 1.5m lengths.

Selection of the correct underlayment is highly important. A strong surface is required to support any movement within the wood floor

during its lifetime. High performance products like Stopgap 100, 200 and 300 are recommended for this purpose. Their rapid, early strength gain coupled with the fast drying properties ensure the subfloor is capable from day one to cope with any excessive stresses imposed on the floor. The fast drying technology utilised in these products also minimises residual moisture in the levelling compound.

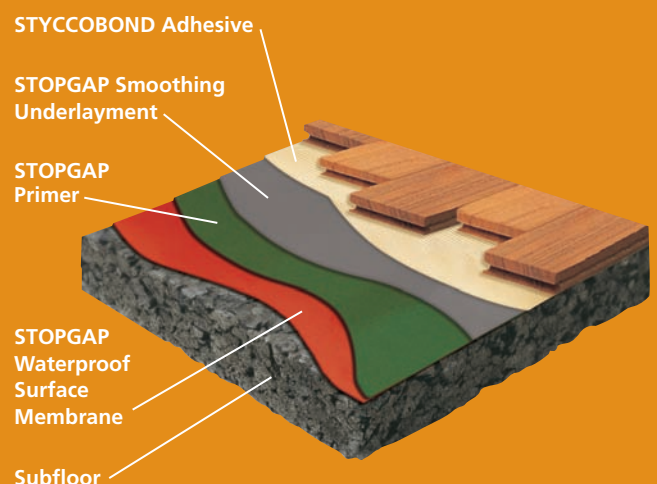
4. Adhesives

Selection of the correct adhesive is critical. All wood flooring differs and dependant on the type of wood and size of product to be installed, different adhesives will be required.

F. Ball has a wide range of wood adhesives for the installation of all types of wood flooring and we would recommend contacting our Technical Service Department to guide you through the most suitable products to ensure a successful and long lasting installation.

This guide is designed to offer an overview of subfloor preparation for the installation of a wood floor. Consideration should also be given to the advice provided by the wood flooring manufacturer concerning the correct conditioning of the wood product prior to installation, as this is also vital to product performance.

Providing a Complete System for Wood Floor Installation



Moisture Control and Floor Levelling

Digital Hygrometer



Type	Digital device for precise measurement of moisture in subfloor bases
Applications	For use on cementitious and synthetic anhydrite floors
Benefits	Unit is taped to floor, left for the appropriate period of time to reach equilibrium and then switched on for an instant reading

Stopgap F75

Two-Coat Waterproof Surface Membrane



Type	Roller applied two-part epoxy resin system
Applications	Onto absorbent concrete and sand/cement screed where relative humidity levels are above 92%
Benefits	Provides an effective vapour barrier Facilitates the early installation of moisture sensitive floorcoverings Pigmented red to allow visual control of coverage uniformity Use with Stopgap Accelerator for faster curing time
Pack size	5kg, 10kg

Stopgap F76

One-Coat Waterproof Surface Membrane



Type	Trowel and roller applied two-part epoxy resin system
Applications	Onto absorbent concrete and sand/cement screed where relative humidity is up to 92%
Benefits	Provides an effective vapour barrier Facilitates the early installation of moisture sensitive floorcoverings Pigmented blue to allow visual control of coverage uniformity Use with Stopgap Accelerator for faster curing time
Pack sizes	5kg, 10kg

Stopgap 100 RAPID

Ultra Fast Drying Smoothing Underlayment



Type	Hand or pump applied ultra fast drying smoothing underlayment
Applications	Absorbent and non-absorbent subfloors in heavy-duty interior areas
Benefits	Ideal for fast-track solutions Primerless when bonded to freshly applied Stopgap F75 or F76 or on most non-absorbent subfloors Excellent self-smoothing properties
Pack sizes	25kg

Stopgap 200 SMOOTH

Acrylic Self-Smoothing Underlayment



Type	Hand applied acrylic self-levelling underlayment
Applications	Absorbent and non-absorbent subfloors in light to heavy-duty interior areas
Benefits	Low odour and protein free Fast drying and extended open time Application thickness from 2 - 20mm
Pack sizes	25kg powder, 5 litres acrylic liquid

Stopgap 300 HD

Heavy-Duty Smoothing Underlayment



Type	Hand or pump applied water mix, heavy-duty floor smoothing underlayment
Applications	Absorbent and non-absorbent subfloors in light to heavy-duty interior areas
Benefits	Fast drying and excellent self-levelling properties Low odour and protein free
Pack sizes	25kg

wood adhesives range

F. Ball and Co. Ltd's range of adhesives and ancillaries has been formulated to meet the needs of professional wood floor installers. Covering the needs of day-to-day wood floor installation, the range offers a choice of adhesives to meet application, site and performance requirements. Ancillaries ensure that work can start as quickly as possible and can be brought to a perfect finish.

Adhesives

B95 High Performance, Flexible Wood Flooring Adhesive



Type	Trowel applied, moisture curing adhesive
Applications	Wood plank, wood strip and engineered (semi-solids) flooring
Benefits	Produces a flexible film that accommodates some movement within wood flooring over its lifetime Safe working - solvent free and isocyanate free Low odour, low hazard Can be applied directly on to Stopgap Waterproof Surface Membranes
Pack Size	8kg, 15kg

B93 Solvent Free Polyurethane Wood Flooring Adhesive



Type	Trowel applied, moisture curing polyurethane adhesive
Applications	Secures wood block, wood mosaic, wood strip and engineered (semi-solids) flooring up to 1.5m in length
Benefits	High performance - higher bond strength and quicker setting than traditional adhesive Solvent free, non-flammable Can be applied directly on to Stopgap Waterproof Surface Membranes
Pack Sizes	9kg, 15kg

B92 Solvent Based Wood Flooring Adhesive



Type	Trowel applied, synthetic resin adhesive
Applications	Secures wood block, wood mosaic, wood strip and engineered (semi-solids) flooring up to 1.5m in length
Benefits	Suitable for a wide range of flooring Tried and tested - preferred by professionals
Pack sizes	7.5kg, 15kg

B91 Wood Block/Mosaic Flooring Adhesive



Type	Trowel applied, water-based adhesive
Applications	Secures wood mosaic and wood block
Benefits	Low water content - high in solids to give a quicker drying adhesive with minimal risk of wood expansion Solvent free, low odour, non hazardous - installer friendly Light colour - will not stain wood floors
Pack sizes	7.5kg, 15kg



Adhesives

F21 Wood Block Adhesive



Type	Dipping, high temperature grade bitumen/rubber emulsion adhesive
Applications	Secures wood block flooring
Benefits	Non-flammable Protected against bio-degradation Proven traditional product favoured by experienced professionals
Pack sizes	5kg, 15kg

Ancillaries

F33 Rapid Set PU Adhesive



Type	Rapid set, moisture curing polyurethane adhesive
Applications	Secures wood block flooring, nosings and trims
Benefits	Quickly secures first row of wood blocks to allow the installation to progress without delay
Pack size	310ml cartridge

B90 Woodworking Adhesive



Type	PVA emulsion adhesive
Applications	For tongue and groove loose-lay systems Can be used as a general purpose woodworking adhesive
Benefits	Solvent free, low odour, non hazardous - installer friendly Water-resistant to D3 of BS EN 204
Pack sizes	1 litre, 5 litres

B94 Wood Filler Base



Type	Solvent based solution
Applications	Mixed with wood flour to fill defects
Benefits	Easy to use, quick setting, colourless to facilitate colour matching
Pack sizes	1 litre, 5 litres

case studies



Luxury Finish for Designer Flat



Long open time and quick setting are prime characteristics of Styccobond B92 general purpose synthetic resin adhesive. These features resulted in the adhesive being used for the successful installation of pre-finished flooring in luxury flats. Subfloor preparation involved the use of Stopgap smoothing underlayment to repair the damage caused to the sand/cement screed where it had been walked on too early.

First Class Results for School

The refurbishment of the main hall of a junior school included the installation of a new timber floor. This was achieved with the use of Styccobond B92 general purpose synthetic resin adhesive which was trowel applied to ensure optimum adhesion of the Maple Prime wood blocks. Covering a total area of 200m², the blocks were laid in a herringbone pattern with a two-block border.



frequently asked questions



1. What should the Relative Humidity level of a subfloor measure prior to the installation of a wood floor?

Wood floors are particularly reactive to moisture and this can lead to expansion and contraction within the wood that puts extreme stresses on the subfloor. F. Ball always recommends a Relative Humidity reading of 65% or less when using a hygrometer prior to installing a wood floor. However, we would also suggest consulting the wood flooring manufacturer as this can vary, depending on the product.

Where moisture readings are above 65% a waterproof surface membrane must be applied. These solvent free, two-part epoxy resin systems prevent moisture rising through the subfloor and causing adhesive failure and/or moisture ingress into the wood.

On subfloors with a RH of up to 92%, Stopgap F76 One-Coat Waterproof Surface Membrane can be applied. Where the reading is above 92% RH, Stopgap F75 Two-Coat Waterproof Surface Membrane should be applied.

2. I have just applied a Stopgap Waterproof Surface Membrane to a sand/cement screed subfloor. The surface is sound, clean and level. Is it possible to install new wood flooring direct to the membrane?

Both Styccobond B93 and B95 can be used to secure wood flooring directly to a Stopgap Waterproof Surface Membrane, providing this is within 24 hours of the membrane curing.

3. Which underlayments are recommended for use under wood floors?

To support any movement within the wood floor a strong surface is required. High performance products such as Stopgap 100, 200 or 300 are recommended as they benefit from early build-up of strength and are fast drying.

Stopgap 100 *Rapid* is ideal on fast-track projects as it is formulated with ultra-fast drying technology that enables wood floorcoverings to be installed from as soon as 12 hours after application. When

bonded to freshly applied Stopgap Waterproof Surface Membranes, priming is not required.

Stopgap 200 *Smooth* is an acrylic self-levelling underlayment which produces a very hard, smooth surface. It is low odour and protein-free making it suitable for use in biologically sensitive areas.

Stopgap 300 *HD* is a heavy-duty, water-mix underlayment, which is ideal for high traffic areas. It has excellent self-levelling properties and can be pump applied over large areas.

4. Can any lengths of wood plank be bonded to a suitable subfloor?

We would recommend that the lengths of planks, in general, do not exceed 1.5m, as it is very difficult to maintain the surface regularity of both the subfloor and wood flooring. The planks may pivot on any high points and break the bond before the adhesive develops its full strength.

5. Can wood floorcoverings be installed over an underfloor heating system?

It is possible to install some stable wood floorings, including engineered wood floors, over underfloor heating systems using a flexible moisture curing PU adhesive such as Styccobond B95. However, in all instances the supplier/manufacturer of the wood flooring should be consulted as to the suitability of the floorcovering in this situation.

6. What is the best method for removing Styccobond B93 and B95 from the surface of a wood floor?

Unfortunately, both adhesives being PU based, when cured, are water and solvent resistant and the only way to remove them would be by mechanical means such as sanding and then resealing the installation. For this reason, it is important to completely remove all traces of adhesive from surfaces, before it cures.

Technical and Material Safety Datasheets are available online at:

www.f-ball.co.uk



For further information about products from F. Ball and Co. Ltd.
or technical advice, please contact:



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