

# THE WOOD FLOOR RANGE

FROM F. BALL



SUBFLOOR PREPARATION PRODUCTS AND ADHESIVES FOR WOOD FLOOR SPECIALISTS



F. Ball and Co. Ltd.

# 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 F76 or F77 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 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.

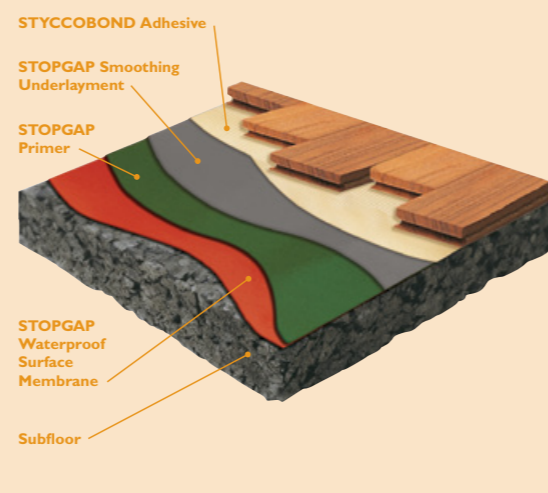
## 4. Adhesives

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**  
**Applications**  
**Benefits**

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

### Stopgap F76



**Type**  
**Applications**

**Benefits**

**Pack sizes**

### One-Coat Waterproof Surface Membrane

Trowel and roller applied two-part epoxy resin system  
Onto absorbent concrete and sand/cement screed where relative humidity is up to 92%  
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  
5kg, 10kg

### Stopgap F77



**Type**  
**Applications**

**Benefits**

**Pack sizes**

### One-Coat Accelerated Waterproof Surface Membrane

Trowel and roller applied two-part epoxy resin system  
Onto absorbent concrete and sand/cement screed where relative humidity is up to 98%  
Provides an effective vapour barrier  
Facilitates the early installation of moisture sensitive floorcoverings  
Pigmented black to allow visual control of coverage uniformity  
Can be applied direct over under floor heating screeds using a coverage of 1.8m<sup>2</sup>/kg where readings are up to 90% RH  
3kg, 7kg, 14kg

### Stopgap 200 SMOOTH Acrylic Self-Smoothing Underlayment



**Type**  
**Applications**  
**Benefits**

**Pack sizes**

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

### Stopgap 300 HD



**Type**  
**Applications**  
**Benefits**

**Pack size**

### Heavy-Duty Smoothing Underlayment

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



<b>Type</b>	Trowel or gun applied, moisture curing adhesive
<b>Applications</b>	Wood plank, wood strip and engineered (semi-solids) flooring
<b>Benefits</b>	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
<b>Pack sizes</b>	1kg foil/sausage, 8kg, 15kg

### B92 Solvent Based Wood Flooring Adhesive



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

### F21 Wood Block Adhesive



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



## 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.

## Ancillaries

### Stycco Flex



<b>Type</b>	A rapid curing flexible adhesive
<b>Applications</b>	Fix stair nosings without the need for mechanical fixing to suitably sound substrates
<b>Benefits</b>	It is also suitable for bonding carpet gripper, PVC cladding, skirting boards, architrave and trims
<b>Pack size</b>	290ml cartridge

### Rapid Curing Flexible Adhesive

<b>Type</b>	A rapid curing flexible adhesive
<b>Applications</b>	Fix stair nosings without the need for mechanical fixing to suitably sound substrates
<b>Benefits</b>	It is also suitable for bonding carpet gripper, PVC cladding, skirting boards, architrave and trims
<b>Pack size</b>	290ml cartridge

### Stycco Bond PU



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

### Rapid Set Polyurethane Adhesive

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

### B90



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

### Woodworking Adhesive

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

### B94



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

### Wood Filler Base

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

# 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 F77 One-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 200 or 300 are recommended as they benefit from early build-up of strength and are fast drying.

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](http://www.f-ball.co.uk)**