

# Engineered Flooring Installation Instruction

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This installation guide provides detailed instructions for installing engineered flooring using two methods: Floating and Direct Stick (Glue-Down). Please follow the steps closely to ensure proper installation and optimal performance. The guide also highlights important aspects such as moisture barriers, expansion gaps, and post-installation care.

We strongly recommend employing a professional installer to ensure that the engineered flooring is laid correctly and to avoid potential issues related to improper installation.

The owner should thoroughly inspect the flooring for colour, grade, and finish consistency before installation to ensure it meets their expectations, as any concerns must be addressed prior to the process.

Installers should carefully inspect each board before and during the installation process for any visual defects such as warping, scratches, or imperfections in the finish. Boards with significant defects should not be installed, and any issues should be reported immediately to the supplier. It's important to review boards in proper lighting conditions, especially in areas exposed to natural light, to ensure consistency in colour and quality. Once installed, any defects will be considered accepted, and the manufacturer will not honour claims for defects noticed afterward.

## 1. Pre-Installation Guidelines for Both Methods

### **Storage**

Store flooring in a dry, flat area, and keep it in original packaging until installation. Ensure the environment resembles in-service conditions (20°C and 40-60% humidity) to avoid material damage.

### **Subfloor Preparation**

Ensure the subfloor is flat. For floating floors this generally does not exceed 3mm beneath a 1m long straight edge. For direct adhesive fix applications, 3mm beneath a 3m long straight edge applies.

Remove any contaminants, including dirt, grease, and paint. Sand the subfloor if necessary to improve adhesion.

## **Moisture Barriers**

Moisture content should not exceed 6% for concrete slabs and 14% for wood subfloors. Or following the instruction and requirement of underlay or moisture seal.

For concrete subfloors, a moisture barrier such as a 200µm plastic sheet or a moisture barrier product must be used to prevent damage from rising damp.

Whether using a floating or direct stick system, the moisture barrier, in the form of underlay or moisture seal coating, is essential for protecting the flooring from moisture damage, particularly on concrete subfloors. Failure to get moisture barrier in place will void the warranty and increase risk significantly to issues such as warping or swelling due to moisture exposure.

## **2. Floating Method**

### **Underlay Installation**

Install acoustic underlay with a moisture barrier, ensuring a 100mm overlap at the joints, and seal the joints with waterproof tape.

### **Flooring Installation**

Start by laying the first row along a straight wall, leaving a 10-12mm expansion gap around the room perimeter. In high-humidity regions, the gap should be 15-20mm.

Apply cross-linked PVA glue to the tongue of each board. Stagger the end joints by at least 300mm for stability and alignment.

During installation, any glue residue on the surface of the boards should be cleaned immediately using the appropriate adhesive remover to prevent staining or damage to the flooring finish.

### **Maintain expansion gaps**

12-15mm around the perimeter, with an additional 1-2mm per extra meter over the standard raft size. Use transition trims between rooms and different flooring types.

Caulking should be avoided around the perimeter and in expansion gaps, as it can restrict the natural movement of the flooring. This may lead to issues such as buckling or warping, which could compromise the installation and void the warranty.

### **3. Direct Stick (Glue-Down) Method**

#### **Subfloor Preparation**

Ensure the subfloor is dry, clean, and flat. Use a leveling compound where necessary, and sand wood subfloors. Remove any substances that could affect adhesive bonding.

#### **Adhesive Application**

Use a 4mm notched trowel to apply adhesive in full layers. Work in small sections to avoid the adhesive drying before the flooring is installed.

#### **Flooring Installation**

Start at a straight wall, leaving a 3-5mm expansion gap. Use weights to hold the planks in place and prevent movement while the adhesive cures.

Stagger the end joints and align the planks carefully for the best visual and structural outcome.

During installation, any glue residue on the surface of the boards should be cleaned immediately using the appropriate adhesive remover to prevent staining or damage to the flooring finish.

For the direct stick method, a flexible sealant such as caulking can be used sparingly, particularly in areas where expansion is needed, like around door thresholds, heating ducts, and metal jambs. Ensure that the caulking allows for up to 3-5mm of movement to accommodate natural floor expansion and contraction. However, excessive use of caulking may hinder floor movement and should be avoided in large expanses or along wall perimeters.

### **4. Special Considerations**

#### **Sufficient Expansion Gaps**

**especially in humidity area or large space**

Expansion gaps are essential for accommodating natural floor movement. Leave adequate space along walls, around fixed objects, and between rooms.

It's essential to consider additional expansion gaps, regardless of the installation method used. In larger continuous areas, such as open spaces or long hallways, natural expansion and contraction due to temperature and humidity changes are more significant. To accommodate this, ensure that expansion gaps are slightly larger—usually an additional 1-2mm per extra meter beyond standard raft sizes. Expansion joints or trims may also be necessary at room transitions or doorways to prevent tension and maintain the floor's stability.

### **Sufficient Moisture Control**

Always use moisture barriers over concrete subfloors to prevent damage caused by rising damp.

For glue with moisture barrier or without, always check the technical data sheet and application instruction, follow their instruction to achieve moisture barrier performance.

## **5. Post-Installation**

Avoid heavy foot traffic for 24 hours to allow the adhesive to cure.

After installation, the flooring should be properly protected if other construction work is ongoing. Use protective coverings like compressed cardboard or temporary floor protection that won't trap moisture or scratch the surface. Avoid placing rugs, mats, or heavy furniture on the floor until it has fully acclimatized, which typically takes about 8 weeks. Additionally, direct sunlight should be minimized with window coverings to prevent heat-related damage.

After installation, if the space will not be occupied immediately, it's important to ensure proper ventilation is maintained. Keeping the area well-ventilated helps regulate temperature and humidity, preventing moisture buildup that could affect the floor. Even in unoccupied spaces, airflow is essential to support the flooring's acclimatization and avoid potential issues like expansion or warping.