

# Installation and maintenance instructions

Altro adhesive-free flooring  
Altro Stronghold™ 30 / K30 adhesive-free

## General

Altro Stronghold 30 / K30 adhesive-free flooring has the combined benefit of Altro's highest rating for slip resistance, minimising the risk in wet and greasy areas, with an adhesive free floor system for maximum impact with minimum downtime.

Altro adhesive-free flooring can be laid over a variety of surfaces without the need to fully adhere the material to the subfloor. This overcomes many of the problems encountered in laying sheet flooring over new or old subfloors.

Typical areas of use for Altro Stronghold 30 / K30 adhesive-free flooring include;

- Temporary or permanent walkways or areas where the substrate may need to be used again later.
- Over old, soundly fixed asbestos tiles or vinyl sheet.
- Over existing resin or paint systems that are sound.
- Over existing quarry tiles that are dry, sound, well bonded and suitably prepared.
- On new cementitious screeds or slabs where the moisture level is less than 97% RH (Relative Humidity) / 7 CM% (Carbide Method).
- Over internally heated subfloors providing they are dry, ie 75% RH / 2 CM% or less.

Altro Stronghold 30 / K30 adhesive-free can be installed in areas up to 400 m<sup>2</sup> in size. For areas larger than this please contact your local technical services representative for advice.

Correct subfloor preparation is key in achieving a successful installation. Any irregularities in the subfloor will be seen in the finished installation.

Any failure directly related to inadequate subfloor conditions or subfloor preparation is the responsibility of the installer and / or flooring contractor once the installation has started.

Moisture tests should always be carried out on all substrates before commencement of installation and results recorded. All ground level floors should have a suitable moisture barrier. If any doubt exists a surface applied damp proof membrane (DPM) or other appropriate moisture protection system should be used in accordance with BS 8203:2017.

If installing Altro Stronghold 30 / K30 adhesive-free flooring into minus temperatures such as walk in freezers; it should always be fully adhered to the subfloor to avoid product failure.

In areas subject to negative pressure caused by smoke or air extraction systems within a building, Altro adhesive-free floor coverings may lift slightly from the subfloor. In these situations we recommend that a fully bonded Altro floor covering is used instead. Please contact Altro Technical Services for further information.

## Storage

Altro adhesive-free flooring should be laid in accordance with the Code of Practice BS 8203:2017. The material should be stored for approximately 24 hours at a room temperature of not below 18°C. If the floor covering has been stored or transported immediately prior to delivery at a temperature of less than 10°C, then the acclimatisation period should be extended to 48 hours. When laying, the area should be at a steady temperature of between 18°C and 27°C with a relative air humidity of between of 35% and 65% RH for at least 48 hours prior to, during and for at least 24 hours after completion.

**Note:** It is essential the flooring is checked for any possible faults prior to installation.

Cut the flooring into required lengths and lay freely for a minimum of 2 hours for conditioning before fitting.

Altro Stronghold 30 / K30 adhesive-free **MUST** be back rolled after being cut into required lengths to take out any tension in the product.

Ensure that the material used in any one area is from the same manufacturing batch and that sheets are laid in the same direction.

Any liquid or contaminant ingress from above including damage / incorrect and / or poor installation techniques will invalidate the product guarantee.

Claims against guarantee for colour, batch or obvious material defects will only be considered if the flooring has not yet been installed.

## Subfloor

The subfloor must conform to the requirements of BS 8203:2017.

The subfloor surface must be clean and free of any debris / dust or loose particles. Absorbent surfaces may need priming using a suitable acrylic primer or diluted acrylic adhesive / pressure sensitive adhesive in accordance with manufacturer's instructions, spray adhesives used as primers should be avoided.

The primed surface must be completely dry before installation starts. Prior to installation, all material including tapes and primer if using, should be allowed to reach room temperature.

### Timber subfloors

For best possible results all wooden floor boards, wood based panel boards, particle boards including orientated strand board (OSB) should be securely fixed and overlaid with a minimum 5.5 mm thickness plywood to provide a smooth and even surface. Flooring grade plywood such as Hanson SP101 or similar should be used. Refer to BS 8203: 2017 and the Contract Flooring Association for guidance and advice for a suitable plywood specification. Wood based floating flooring also requires overlaying with a minimum 5.5 mm thickness suitable flooring grade plywood as above. Any bumps, dips or voids may be evident in the finished flooring if not overlaid with a suitable plywood. All screw and nail head fixings must be below surface of overlaid plywood and indentations filled with an appropriate filler.

Suspended timber floors should be adequately ventilated in accordance with BS 8203:2017. Floor boards and similar substrates should be of a grade and thickness of timber appropriate for the construction of the floor, nature of the building, expected design loading and have a moisture content of max 8% (equivalent to 40% RH at +20°C).

### Wood block floors

Altro adhesive-free flooring can be installed on existing wood block floors **EXCEPT** for wood blocks laid at ground floor level. If above ground level, and there is no chance of moisture ingress, they should be securely bonded to the base, and be smooth, even and free of any oil or wax based finishes. Wood blocks should be covered with minimum 5.5 mm thickness plywood (Hanson SP101 Ply or similar) to provide a smooth an even surface before installation of Altro adhesive-free flooring. If any doubt exists, contact Altro Technical Services for advice.

### Concrete subfloors

All ground level floors should have a suitable moisture barrier. If any doubt exists a surface applied damp proof membrane (DPM) or other appropriate moisture protection system should be used in accordance with BS 8203:2017.

When installing Altro adhesive-free flooring on a new concrete subfloor, which has an integral and effective damp-proof membrane the relative humidity of the subfloor can be up to 97% RH / 7 CM%. When installing Altro adhesive-free flooring on an existing concrete subfloor without an integral and effective damp-proof membrane and where the relative humidity of the subfloor exceeds 75% RH / 2 CM% (but less than 97% RH / 7CM%), provision for additional ventilation should be made such as with ventilated skirting's. If in any doubt please contact Altro Technical Services for more advice.

### Expansion Joints

Altro adhesive-free flooring should never bridge an expansion joint. The joints need to be brought through to the final floor finish, and the floor coverings should finish either side of the joint. If required a suitable expansion joint cover strip can be used - please contact Altro Technical Services for more advice.

## Approved installation tape

Altro adhesive-free flooring is a loose laid floor and is laid with the aid of the Altro double sided adhesive tape. This tape is supplied with each roll of Altro adhesive-free flooring.

**Please note that the surface area to receive the tape must be clean and dust free. Absorbent surfaces may need priming using a suitable acrylic primer or diluted acrylic adhesive or pressure sensitive adhesive in accordance with manufacturer's instructions, spray adhesives used as primers should be avoided. The primed surface must be completely dry before installation starts.**

In order to provide the optimum installed system and to conform to the conditions of the guarantee please ensure that only this tape is used in connection with Altro adhesive-free flooring.

Please note: Tape consumption is reduced in commercial kitchen areas or areas prone to spillage. In these areas AltroFix MP600 or similar moisture tolerant MS Polymer must be used to all exposed edges and all drain systems. See below for further detail.

Additional rolls of tape are available from Altro. Please contact the Altro Customer Care Centre for further information.

## Installation

**Note:** Claims against guarantee for colour, batch or obvious material defects will only be considered if the flooring has not yet been installed.

The material should be checked for any possible faults prior to laying and should be cut into lengths, and laid loose for conditioning for a minimum of 2 hours before fitting.

Ensure lengths of Altro Stronghold 30 / K30 adhesive-free are laid in the same direction.

The surface temperature of the subfloor must not be below +10°C, and for installations over underfloor heating must be between +18°C and +22°C. Prior to installation, all material including tapes and primer should be allowed to reach room temperature.

Once laid out and conditioned, all joints should be overlapped by approximately 20mm and cut in to form a tight joint. A 2mm gap should be left between the flooring and perimeter edge to be filled later with AltroMastic 100.

Altro double sided tape should be used under all joints including hot welded joints and the perimeter of the room / installation.

The tape can also be used on the cove section when self coving the flooring – (for self coving, see Altro safety flooring installation guidance). It is also recommended that at any point where the flooring finishes, such as at door entrances, the material should be adhered to the subfloor using the Altro double sided tape. Areas of high traffic or turning points can have additional tapes applied to the area.

A 150 mm wide band of AltroFix MP600 (approximately a trowel width) should be applied around all exposed edges (including gully edges and access covers) and any adjacent areas prone to thermal shock, e.g. drains / drainage systems. Avoid placing joints that will need hot welding, where the band of AltroFix MP600 is used, such as around drains.

Once fully installed, all joints and mitres within the installation should be hot welded with the matching colour Altro Weldrod™, as detailed in the Altro safety flooring installation guidance sheet.

The finished installation must be completely sealed around all perimeters between the adhesive-free floor covering and wall covering or other floor surfaces, around exposed edges including pipes, door frames etc. with AltroMastic 100, and with the use of conventional clamping or welding type drain gulleys and access covers. Refer to the Altro detail diagram sheet of the appropriate finishes with AltroMastic 100.

Altro Stronghold 30 / K30 adhesive-free flooring is not recommended for use in the following areas;

- On ground floor timber bases that are not adequately ventilated.
- On woodblock ground floors.
- On magnesite.
- On subfloors which contain an effective damp proof membrane but exceed a relative humidity reading of above 97% RH / 7 CM%.
- On internally heated subfloors which exceed 75% RH / 2 CM%.
- In minus temperature environments such as walk-in freezers.

The uses given in this datasheet are examples only. If in doubt, please contact Altro Technical Services for further information.

## Underfloor heating

Underfloor heating must be fully commissioned and taken through two complete cycles of heating up and cooling down prior to the floor covering being installed. The temperature at the underside of the floor covering, i.e. the subfloor / tape bond line, should never exceed 27°C. The relative humidity of the subfloor must be 75% RH / 2 CM% or less.

The floor covering can be installed whilst the underfloor heating is on, only if the floor covering has been acclimatised and laid out in the room for at least 2 hours before installation. Issues will arise if the underfloor heating system is not commissioned and/or the floor covering is not acclimatised beforehand, and the temperature of the underfloor heating is increased from cold quickly instead of incremental.

If installing the floor covering over the underfloor heating while switched off, it should be switched off 48 hours prior to the floor covering installation and should remain off for the duration of the installation and at least 48 hours after completion. After the 48 hours have elapsed the temperature of the heating system should be increased gradually over a number of days, by a maximum of 5°C per day, until the desired room temperature is reached.

Please contact Altro Technical Services for more advice on installing adhesive free flooring over underfloor heating.

## Protection

Altro flooring should be covered and protected from all other trades with a suitable non-staining protective covering.

Self adhesive protection should never be used directly on the floor surface. The use of temporary protection is particularly pertinent when relocating heavy furniture or equipment.

Please ensure that the wheels of any rolling loads are in good condition and are freewheeling.

## Cleaning and maintenance

### Basics

The contractor must provide the customer with cleaning and maintenance instructions. You can download these from [www.altro.com](http://www.altro.com). Correct cleaning and maintenance have a decisive influence on the service life and preservation of the value of the installed flooring.

### Preventive measures

Soiling can be greatly reduced by providing suitably dimensioned “walk-off areas” with appropriate doormats at the entrances to buildings. These should have a length of at least 4–6 strides.

**Please note:** A distinction should always be made between adhesive and non-adhesive dirt. Non-adhesive dirt should be removed using a dry method of cleaning. Loose dust, for example, can be removed simply by brushing or using a vacuum cleaner with a hard floor brush.

### 1. Final cleaning after installation

The final cleaning after installation is intended to remove all dirt introduced during the construction phase. Red pads and JuliPads can be used with single-disc machines.

**Please note:** Initial treatment is not necessary.

Altro adhesive-free flooring does not require extra surface polish or treatment following installation. The surface only requires ongoing cleaning and maintenance on a regular basis with the correct cleaning solution and equipment. The use of a polish will reduce the slip resistance of the floor covering.

### 2. Routine cleaning

Routine cleaning should be conducted with a detergent that contains no care product ingredients and which dries on the surface without leaving any residue. Alternatively, routine cleaning can be carried out using another certified cleaning

agent in accordance with the guidelines as given by the cleaning agent’s manufacturer. These products should not contain any substances that form a film. Switching to a different detergent can have negative repercussions for the cleaning effect. We recommend aligning the cleaning cycle to the accumulation of dirt. The standard technique recommended is two-stage wiping, in which dirt and dust are removed without residue or streaks.

### Machine cleaning

The use of a scrubbing / vacuum machine is particularly effective in large buildings. We recommend the use of cleaning machines in combination with micro-brush pads to deal with open spaces and hallways. For smaller areas, please use machines with a high suction capacity; they should also be equipped with constant suction mode when moving forwards or backwards.

**Please note:** Routine cleaning should be carried out using a microfiber mop in accordance with the manufacturer’s guidelines. As a rule, we recommend using a mop with a working width of 40 cm.

### 3. Basic cleaning

In the event of basic cleaning becoming necessary due to an excessive introduction of dirt, it can be carried out without further ado in accordance with the instructions of the respective cleaning agent manufacturer.

### Removing stains

Stains and smears from the soles and heels of shoes that cannot be removed by routine cleaning can be dealt with using suitable stain removers and cleaning techniques.

### 4. List of cleaning agents

A list of the specific products available from the respective manufacturers for final cleaning, routine cleaning and basic cleaning can be found at [www.altro.com](http://www.altro.com). If you have any questions, please contact Altro for technical advice +44 (0) 1462 707600.

We accept no liability for the cleaning and care products recommended by the manufacturers as regards effectiveness and fulfilment of expectations. If you have any questions, including regarding sources of supply, please contact the manufacturers directly.

**For further information or technical advice**

**tel: 01462 707600**

**email: [enquiries@altro.com](mailto:enquiries@altro.com) or [www.altro.com](http://www.altro.com)**