



Tarkett Carpet Tile Installation Guide



THE ULTIMATE FLOORING EXPERIENCE

Inspecting and preparing floor surfaces

When fitting carpet and carpet tiles, the subfloor always demands special attention. The subfloor quite literally forms the base on which the carpet and carpet tiles have to display their qualities and characteristics. Aspects such as moisture, planes, smoothness, a porosity and compression strength are extremely important in that respect. Requirements differ with the type of subfloor involved. The various types concerned are described separately below. In general the subfloor must comply with the relevant Australian Standards (AS 2455.1:2007 & AS 2455.2:2007).

Note: If there is a subfloor condition that is not mentioned here, please contact the Technical Services Department at Tarkett before undertaking installation.

Concrete Subfloors

Always check a concrete subfloor for moisture, pH and porosity. Moisture testing should be done in accordance with ASTM F170-11 (Standard test method for determining Relative Humidity in Concrete Slabs using In Situ probes and pH testing). Please follow the requirements of the levelling compound and/or adhesive manufacturer's recommendations in regards to the acceptable Relative Humidity (RH) up to 85% and pH of the slab before commencing the installation. Furthermore, the subfloor should also be continuously free from moisture. Check the ventilation under the floor and in the outer walls. As a guide there should be 5cm² ventilation per m² of floor surface. The subfloor should also be clean, flat, porous, solid and free from grease and other contaminants. There should be no cracks, loose flaky areas or irregularities present. If the subfloor is granular, rough or uneven it will require levelling. Porous and/or granular subfloors should first be prepared using an acrylic or polyurethane based primer. If applicable an acrylic based primer is preferable, but that form of preparation is the least environmentally friendly. The instructions for the product concerned should therefore be followed extremely carefully. Sand off any irregularities and level using a waterproof cement based, or latex levelling compound. Sand wherever necessary when dry.

Extremely smooth and dense floors (e.g. Granito tiles or Terrazzo)

Levelling is also often necessary on smooth and dense floors, especially if there are any rough spots on the surface. Tiled floors often require levelling. First ensure that a good adhesion surface exists by applying a primer recommended by the adhesive manufacturer, before levelling. In case any 'sagging' occurs along the joins or seams levelling will have to be repeated. Sand wherever necessary, when dry and hard.

Subfloors with an existing hard covering

In case the subfloor has already been finished with a hard covering such as linoleum, PVC or suchlike, the following precautions should be taken. Check whether all of the existing covering is still firmly attached to the subfloor. If any areas are damaged they will have to be repaired first and if the existing covering cannot be repaired, the existing covering should be removed completely. Follow the levelling compound and/or adhesive manufacturer's installation instructions in regards to the correct preparation of the subfloor (i.e. cleaning or priming over a hard floorcovering) and the application of the primer, leveling compound and adhesive.

Note: if you have removed the existing covering as a result of irreparable damage, before proceeding any further read the remarks in the section entitled 'Floors on which a previous covering was adhered'. The instructions described in that section should be followed very carefully.

Wooden floors

Wooden floors in particular, despite being fitted with a hardboard finishing layer, can nevertheless cause the formation of impressions in the carpet over the course of time. That also applies to the hardboard itself as a consequence of the natural working of the underlying wood. The best solution for this problem is a subfloor constructed from e.g. plywood, hardboard or MDF. In that manner sufficient solidity can be obtained to prevent any impressions of the underlying floor from forming.

The moisture content of timber, plywood or particleboard subfloors can be determined with an electrical resistance type moisture meter.

Variations of up to 5% in moisture values can occur depending upon the species type and temperature of the timber. Please refer to AS/NZS 1080.1:1997 for the temperature and moisture content correction for the different timber species.

While it is generally difficult to specify exact percentage thresholds, a percentage reading above 15% would indicate a higher than acceptable level of moisture in a timber floor.

All loose parts must be removed and the surfaces must be levelled. Wooden floors in a poor condition should be re-surfaced using plywood or hardboard sheets. In general, a wooden floor never possesses absolute solidity by definition. Therefore it is necessary to pay the utmost attention to the finishing layer.

Hardboard sheets (always install rough side up) should be fastened at 15cm centres, i.e. 15cm apart, using a spot nailer/stapler. The same method can be used for plywood up to 6mm thick. Plywood over 6mm thick should be screwed to the floor at ± 23 cm centres. The same goes for chipboard and MDF.

Important considerations concerning the floor

- Vanished and polished surfaces should be prepared in accordance with the adhesive manufacturer's recommendations.
- All floors should be dry, clean, solid and resistant to Compression.
- Never install tiles on a sub-carpet or on an existing carpet.
- On all floors use 100% Pressure Sensitive adhesive. For adhesive free installations contact Tarkett Sales representative.
- Make sure the pressure sensitive adhesive is well dried before installing the tiles.
- On computer floors always use conducting pressure sensitive adhesive, so the static electrical person charge can be led away horizontally/vertically. If necessary, lay within every room till max 40m² a copper band of 1.25m grid underneath the carpet tiles and make sure the copper band is well earthed. In larger rooms use a 1.25m copper band for every 40m².

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Floors on which a previous covering was adhered

All floors on which some form of covering was previously adhered, require a thorough inspection as per the requirements of AS 2455.1:2007 & AS 2455.2:2007. Once the old covering has been removed, the subfloor will almost certainly show signs of damage. Furthermore, some old adhesive will also inevitably be left remaining. Always remove any old adhesive first, thoroughly remove all dirt and dust from the floor and apply a primer or adhesive layer in accordance with the primer and/or adhesive manufacturer's recommendations and allow it to dry thoroughly. The floor should then be levelled and sanded wherever necessary.

Inspecting the floor

A detailed inspection of the floor and materials is essential. The need to inspect the floor for damp, ventilation, etc. has already been discussed extensively. Please follow the requirements noted in AS 2455.1:2007.

Site conditions for fitting

As per the requirements of AS 2455.1:2007 the carpet must be conditioned onsite and be allowed to come to the same temperature and relative humidity as the area where it is to be installed. Furthermore, when fitting Tarkett carpet tiles a minimum working temperature of 15°C is essential. Humidity, especially when adhering, may also be an influencing factor and therefore has to be taken into account. Always follow the instructions of the adhesive manufacturer (For suggested list of adhesives, refer to www.Tarkospec.com.au).

For rooms with floor heating systems, the only technique applied is full adhesion. The heating temperature needs to be reduced 24 hours before installing; 48 hours after installation is completed, the heating system can be turned up slowly. During wintertime, the floor temperature has to be reduced to a level between 15° and 18°C.

Recommendation

All Tarkett carpet tiles should be acclimatised to the ambient conditions of the facility before installation is commenced. The palletised product should be unwrapped and removed from the pallet. They should be carefully stacked and allowed 12-24 hours acclimatisation before laying is commenced.

Carpet tiles do not require the use of a permanent bond adhesive, gripper or underlay. We recommend the use of an approved pressure sensitive adhesive (which is applied to the whole of the surface area, especially underneath all seams). Once the adhesive has been allowed to dry (or tack off according to the adhesive manufacturers timing instructions), the carpet tiles can be placed in position.

Laying Tarkett carpet tiles

Never start installing carpet tiles against a wall. Always start from a calculated point in the room along a perpendicular line or chalk line. In offices start with the corridor and install the rooms afterwards, in order to obtain a good connection. Apply one of the recommended pressure sensitive adhesives to the area convenient in size and once the adhesive has become completely dry, the carpet tiles can be installed in accordance with the illustration.

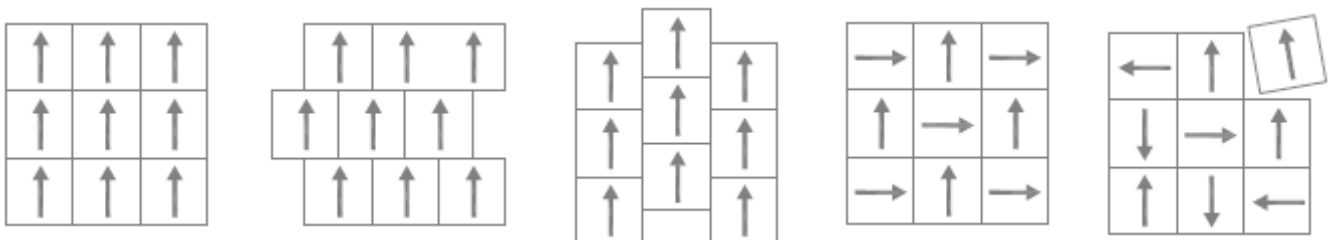
Be sure that the carpet tiles are correctly abutted to limit the appearance of joints to a minimum. To ensure the tiles are tensioned correctly, measure the carpet tiles after every 10 tiles and check the measurement to ensure they have not been installed too tightly or with gaps between the tiles. Care should be taken with cut pile products to avoid trapping edge tufts between the tile joints.

The directional arrows on the back of the carpet tile should be followed, unless agreed otherwise by the contractor and the purchaser.

Note: All cut and end tiles should be laid tightly fitting to the wall.

Effects

The majority of carpet tiles may be installed in one of five different ways as shown in the diagram below. The arrows on the back of the tiles indicate lengthwise. On the sample cards and on the tile boxes you will find Tarkett recommendation for the direction or multiple directions that the tiles can be installed.



Monolithic
(Streight)

Brick
(Horizontal Ashlar)

Ashlar
(Vertical Ashlar)

QuarterTurn

Random

Quarter-turn appearance

For this effect the tiles should be installed with the pile direction at right angles to the adjacent tile. This type of installation may be necessary for carpet tiles with a short (loop) pile and needle felt or fibre bonded tiles. This type of installation should not be used with cut pile products.

Note: Please refer to the product specifications in regards to suitable laying direction. Some products have limited suitability for certain laying directions which may directly impact the desired installation geometry and design. Seams may be more or less apparent dependant on the geometry. The laying direction of the installation will not affect the performance of the product.

Raised flooring systems

Raised access flooring systems are normally 600mm panels. Tarkett usually supply carpet tiles in the 500mm format, however certain products can be made available in 600mm. The installation technique will vary dependent on whether 500mm tiles are laid conventionally as with a normal floor or whether a 600mm tile is placed over the access floor panels. Either size of carpet tile can be installed over a raised access flooring system using a recommended pressure sensitive adhesive. The adhesive should be applied with a roller and care should be taken to ensure that the adhesive stops before the edge of the raised panels. This enables panels to be lifted freely as and when the need arises.

Castor chairs

In areas where office furniture has castor wheels it is imperative that the tiles are fully adhered with the recommended pressure sensitive. To prevent damage occurring to the tiles, the castor wheel should have a minimum diameter of 50mm and be at least 20mm wide.

Stairs

Carpet tiles are suitable for installation on stairs, if fitted with nosing. The tiles and sections of tiles must be secured with the adhesive manufacturer's recommended system on the treads. The risers can be secured with either a single coat of adhesive applied to the riser or with a second coat applied to the back of the tile which, when allowed to dry, will act like a contact adhesive.

Subfloor

When installing needle felt carpets the conditions of the subfloor should be the same as with other textile floor coverings, such as broadloom and carpet tiles. This means that the subfloor has to be even, sturdy, free of cracks and dry. Dense surfaces, such as PVC, need to be prepared in accordance with the adhesive manufacturer's recommendations. In situations with a floor heating system the temperature has to be reduced before installation, in the same manner as described in the chapters about broadloom carpets and carpet tiles. After the installation the temperature has to be gradually turned up. For floors with old adhesive (see the referring paragraphs in second chapter).

Adhesive

For suggested list of adhesives, refer to www.Tarkospec.com.au

Important Notes:

- The In-Situ/RH (relative humidity) requirement on concrete shall not exceed 85% when tested according to ASTM F170-11.
- For cushion backed products and high traffic areas (where the carpet tile is subject to high point loads and shear forces), the adhesive must be applied using a V1.6 notched trowel.
- All primers and levelling compounds should be compatible with the adhesive.