



# Installation Instructions

Carpet Tiles (Tuft & Needlefelt)



# Introduction

Congratulations on your purchase of a Condor Group product. For an optimal result of the product we would like to inform you as to how your purchased product can be best installed. With the publication of this installation instruction, June 2021, all previous instructions regarding the installation of carpet tiles expire.

## 1. Preparation

### 1.1 Checking the Materials

Check the carpet prior to installation for possible manufacturing errors (such as errors in colour, construction, patterns, and dimensions), or transport damage. Products can show a limited squished effect as a result of packaging, storage, and transport. This effect will subside within a few hours when the fibres recover themselves. Material which comes from the Condor Group is delivered from one production batch with which colour correspondence is guaranteed. Nevertheless slight colour deviations cannot be fully excluded. In order to attain an even result it is necessary that, within a space, products of the same batch number will be installed in an ascending role number. In case you still notice a mistake, contact your supplier before you proceed to further processing. It is not possible to accept complaints which could reasonably be noticed prior to installation.

### 1.2 Material Storage

The correct storage of the material ensures that the installation properties are optimally preserved after installation. Therefore, always store carpet in a space which is cool and dry and in which the carpet is stored on an even foundation.

### 1.3 Conditioning

Prior to installation it is essential to acclimatize the carpet tiles and thereby let them adapt to the environment. For this the carpet tiles need to be unpacked on an even foundation, in the space where they will be laid, after which they have to acclimatise for at least 24 hours with a minimum temperature of 16 degrees Celsius.

## 2. Preparation and the required circumstances

### 2.1 Foundation

The condition of the foundation determines to a large degree the look of your carpet. Carpet tiles from the Condor Group can be used for many applications provided that the foundation suffices. The Condor Group advises the use of a foundation which is based on the DIN 18 560 norm and the advice of the "Technische Kommission Bauklebstoffe im Industrieverband Klebstoffe e. V.". This means the foundation minimally must meet the following:

- (Permanent) moisture-free. Maximal humidity degree, measured according to DIN EN 13813;
- 0.3% rubber polyolefin and floor heating;
- 0.5% with linoleum, vinyl, and central heating;
- 1% with permeable carpet;
- 2% with cement screeds;
- Have a good surface firmness. The coating needs to have good surface firmness so it can give good adhesion to the product which will be installed. The coating needs to be sufficiently thick and have good adhesion to the foundation. In case of mastic asphalt screeds the coating needs to be minimally 8 mm thick.
- Good shape retention. The foundation needs to have good shape retention in order to absorb tensions/size changes, which can occur due to installation substances. In order to guarantee foundations with shape retention we advise the use of primers;
- Be free from cracks. In order to guarantee crack-free foundations we advise the use of primers; pay attention that in case of conductive floors this does not affect the conductive functioning.
- Even and smooth conform DIN 18202 "Toleranzen im Hochbau; Bauwerke"
- Even absorption power from foundation for adhesion of adhesives. The foundation needs to have an even absorption power in order to get an even adhesion in all places between the foundation and the product which will be installed. An even absorption power of the foundation can be attained by providing the foundation with a primer. Make sure that in the case of conductive floors this does not affect the conductive functioning.
- Clean (among other free from loose parts, grease, oils, and detergents).
- Free from old adhesives and other solvents. Old substances can react with new adhesives and the product. The foundation needs to be low in emission and meet the GEV-EMICODE "EC1" or even better meet the guidelines of the RAL- UZ 113 "Der Blauer Engel".
- Keep shrinking and expanding seams which influence the foundation.
- Limited height difference between floors. In case the height difference is large this needs to be smoothed.
- Resistant to tearing and external pressure
- Meet the requirement conform the DIN 18365 and the attached norms and documents
- The current national construction norms and guidelines;

In case shortcomings have been noticed in one or more of the aforementioned points, they need to be reported to the client so that the appropriate steps can be taken.

### 2.2 Sub-floor

For installing carpet tiles, the use of sub-floors is not possible since its fireproof properties would be lost.

### 3. Preperation

For installing carpet tiles aligning is essential. Determine the starting point or the central point of the space. It is important to never start installing carpet tiles against a wall. Draw two chalk lines which are perpendicular. The perpendicular angle of the two chalk lines is the starting point for installation. Ensure that the carpet tiles along the wall are not narrower than a quarter of the normal carpet tile width. In case of office buildings, start with the hallway for a good connection.

### 4. Installation

Installing your carpet is an important job and we recommend you to let this be done by a recognised and professional upholsterer.

#### 4.1 Installation Temperature

During installation of the carpet tiles the installation temperature needs to be between 18 and 22 degrees Celsius, with humidity of 40-65%. The minimal temperature of the sub-floor needs to be 15 degrees Celsius, with a floor heating system this needs to be between 18 and 22 degrees Celsius. For an optimal result the space needs to meet these conditions minimum of 3 days prior the installation and a minimum of 7 days after installation. 48 hours after installation of the carpet tiles the space may gradually be returned to its original temperature, in steps of maximum 5 degrees Celsius per day. Carpet tiles from the Condor Group are suited to process on sub-floors with floor heating. However, it is essential to turn off the floor heating system 48 hours prior to installation.

#### 4.2 Installation Method

For most carpet tiles there is a plethora of installation possibilities. Hereby, the arrow on the backside of the carpet tile indicates the length direction and this serves as an aide to install the carpet tile in the desired direction. Depending on the product there is a selection of the following installation possibilities:



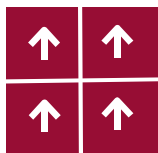
##### Non-directional:

Carpet Tiles are installed without a direction or position.



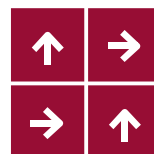
##### Brick:

Carpet tiles are staggered to half of the carpet tile width so a brick effect is created.



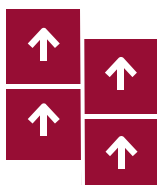
##### One direction:

Carpet tiles are installed in the same direction.



##### Checkerboard:

Carpet tiles are turned 90 degrees.



##### Ashlar:

Carpet tiles are offset by half a tile length so a vertical brick effect is created.

The aforementioned installation methods are also possible in a diagonal position. Diagonal installation results in larger waste from slicing than the aforementioned installation methods.

### 4.3 Joining

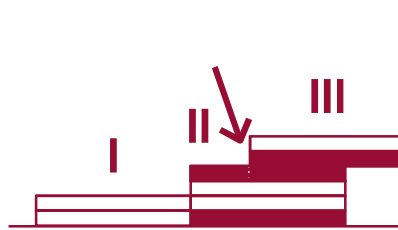
During connection of the carpet tiles it is important that the fibres/threads do not get trapped between the carpet tiles. If necessary the fibres/threads can be brushed before connecting the carpet tiles to each other. Make sure the carpet tiles are not pressed to firm against each other in order to prevent bulb formation.

### 4.4 Cutting

For cutting the (border) carpet tiles, the carpet tile needs to be cut from the back, through the backing.



Lay carpet tile "II" on the last complete carpet tile with the backside up.



Place carpet tile "111" on top of carpet tile "II" whereby carpet tile "111" lays against the side of the space. Then incise carpet tile "II" along the side of carpet tile "111" (which serve as a ruler).



Lay the cut carpet tile "II" in the space in between.

## 4.5 Gluing

The best result will be attained in installing carpet tiles if spaces are completely glued. By complete gluing the form retention of the carpet tile is optimally used and gaps will be limited to a minimum. The alternative for complete gluing is gluing around the sides and obstacles. Partial gluing, however, can result in limited gaps between tiles. The cut tiles need to be glued at all times. There are various kinds of adhesives which are suited for connection carpets. Personal advice from a glue specialist or glue manufacturer is essential for the use of a suitable adhesive. The use of adhesives can influence the odour development of the needle felt carpet after this has been installed. In addition, to limit odour development, you need to use adhesives which are low in emission and are provided with a GEV-EMICODE "EC1" classification, or even better, meet the guidelines conform the RAL- UZ 113 "Der Blaue Engel". In addition, the low emission adhesives need to be free from natural resin and solvents. When gluing the needle felt carpet you need to use water based dispersion adhesives with a gluing power of at least 2N/mm<sup>2</sup> (gluing power can be tested conform DIN EN 14293). Besides the use of dispersion adhesives it is possible to use steady adhesives, such as tape. Steady adhesives are applied in lines on the sub- floor/foundation. The main advantage of the use of steady adhesives is that the carpet is immediately chargeable after installation. Personal advice from a glue manufacturer is essential for the use of steady adhesives. Adhesives need to be applied in accordance with the provisions of the manufacturer and the applying health and safety norms. Consult the attached safety sheet of your adhesive manufacturer for each adhesive prior to use.

## 4.6 Installation Method

1. You need to start with the installation of carpet tiles from the point where the drawn chalk lines cross.
2. Apply the glue which is at room temperature (between 18 and 22 degrees) with a TKB B2/B3 glue comb on the surface. Consult your adhesive manufacturer for the suitable quantity of adhesive for your situation.
3. Then work from the chalk lines to the outer side while installing. First glue the recently cut parts.
4. After the carpet has been installed, move a carpet roller (with a pressing weight of minimum 50 kg) over the carpet in order to attain a good adhesion between the carpet and the foundation, starting with rolling in the width direction, working from the central outwards. It is important to check whether no air is trapped between the foundation and the installed carpet.
5. After approx. 30 minutes repeat pressing the carpet roller again. Pay special attention to properly pressing the cut parts. Do this with the carpet roller and not with other means of pressure.
6. After approx. 60 minutes an inspection needs to be performed to verify whether the end result has been installed according to plan.
7. After the carpet has been installed and glued it cannot be covered for a minimum of 24 hours since the glue needs to dry.
8. Minimally 24 hours after installing the carpet it needs to be protected against dirt in case complementary activities need to be performed in the space.

## 4.7 Alternative Surfaces

Carpet tiles can be applied to alternative surfaces such as stairs, provided that they meet requirements as described in chapter 2. The carpet tiles and carpet tile pieces need to be glued in which the glue is applied to conform to the recommendations of the manufacturer. Consult your installer for all the possibilities with carpet tiles and for the optimal method of installation and connection.

## 5. Conductive Installation

The installation of conductive carpet tiles can be installed on a conductive system by which the carpet tiles become part of the complementary protective measures for electricity, functioning by means of equipotential connection. In spaces where professional regulations for conduction do not apply, you can use neutral conductors. Conductive carpet tiles are earthed by a professional mechanic/specialist. In spaces with conductive systems the N EN 1010 guidelines apply. In order to connect conductive carpet tiles with the ground surface it is important that the adhesives (such as glue and anti-slip coating) have a conductive function and thereby do not have a negative effect on the conduction of your carpet tiles.

### 5.1 Installation with a Conductive Floor

In case the foundation has been provided with conduction, conform the provisions of the manufacturer, it suffices to place minimally 1 metre of copper tape on the connection points on the foundation. In spaces of <30 m<sup>2</sup> you need minimally 2 connection points. Multiple connection points are required if there are larger spaces. The number of connection points is determined in that the maximum distance of the connection points never can be more than 10 metres from each other. Connecting the connection points to the ground fault network needs to be done by a recognized installation agency.

### 5.2 Installation without a Conductive Floor

In case the foundation has not been provided with a full conduction, the use of copper tape is required to make a proper conductive foundation. In doing this, the copper tape is applied over the full length and uninterrupted under each carpet tile. At the end of the row of carpet tiles the copper tape needs to be crossed by another line of copper tape. Every surface may be maximally 30 m<sup>2</sup> and have a connection point which then is connected to the ground fault network. In spaces of <30 m<sup>2</sup> you need at least 2 connection points. Connecting the connection points to the ground fault network needs to be done by a recognised installation agency.



## 6. Finishing

In order to prevent possible moving and/or damaging you need to apply a transition strip between the carpet tiles and other floor covering. After the carpet tiles have been installed a minimum of 24 hours without charge needs to be respected in order to prevent damage and/or movement. Direct sunlight, radiation from heat sources, or strong air circulation on the carpet tiles immediately after installation need to be prevented as well.

## 7. User Application

Carpet tiles from the Condor Group have been developed to be used in environments with room temperatures mostly in combination with temperature and humidity regulating systems. Main points of attention are:

- The environment temperature is between 18 to circa 23 degrees Celsius.
- The desired humidity degree in spaces for carpet is between 40% and 70% humidity (ideally between 50 and 65%). With a humidity of <40% shrinkage or unwanted carpet tile tension can occur. Aside

from that, humidity which is too low has an effect on the electrostatic charge of the carpet tile (mostly in case the humidity is <50%). In case of humidity of >70%, the carpet tile may expand. In environments where the aforementioned tolerances cannot be guaranteed, we advise you to perform a glue test and to inform the customer on the risks of this situation.



## 8. Points of Attention

### 8.1 Charge

For the use of desk chairs with wheels it is required to use type H wheels conform EN 12529 (hard wheels with the provided wheel diameter). However, we advise as regards (local) heavy objects (such as desk chairs) to use synthetic floor mats in order to prevent wearing and/or damage.

### 8.2 Installation FAQ

After installing the carpet tiles many things you notice might raise questions which can be clarified beforehand:

- Some fibres spring from the carpet. It is possible that some fibres spring from the carpet. These can be cut without negative consequences/effects.
- It seems there is a colour difference between the carpet tiles: A part of the carpet tiles might have a deviating colour direction, which gives the optical illusion of colour difference. This is oftentimes not a colour difference but a difference in colour direction which is a property of carpet.
- There are various fibres and fluffs on the carpet: After installing carpet tile excess fibre material can get loose. This will decrease after a number of times of vacuum cleaning.
- After installing folds become visible in the carpet: in case imperfections/swellings occur in your carpet tile floor, please contact your installer.

### 8.3 Conditions

During the installation it is essential to check the end result. After a maximum of 100 m<sup>2</sup> has been installed a proper product evaluation can be performed. In case you find any deviation compared to the product specifications, you need to inform the Condor Group and enable them to take action before proceeding with the installation. Not following this installation instruction and the herein described user application may lead to the invalidation of the guarantee on the product. The Condor Group is not responsible for damage and/or errors which occur due to deviation of the installation instructions.

### 8.4 Support

This installation provision can be found digitally on our website at [www.condor-group.eu](http://www.condor-group.eu). From this installation provision we offer you complementary support by giving maintenance advice for carpets. The maintenance advice can be found at [www.condor-group.eu](http://www.condor-group.eu). If you have any questions or would like to obtain more information, you can contact your installer or the Condor Group.