

Carpet tiles installation information (Pages 1-3)

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Carpet tiles installation information:

Sub-floor Preparation

The quality of the finished installation will depend on the quality of the sub floor. Irregularities in the subfloor will be apparent in the finished flooring. All subfloors should be smooth, sound clean and permanently dry in accordance with BS5325. Particular attention should be paid to the following:

- i) All cementitious floors must have a residual moisture content of less than 75%, when measured according to Annex A of the standard.
- ii) Problems associated with plasticizer migration from PVC materials can lead to dimensional instability in carpet tiles. All subfloors of this type must be removed before installation.
- iii) It is impossible to ensure that wood block floors are not loose or contain latent defects through aging. It is therefore strongly recommended that these are removed and that the subfloor is correctly prepared and, if necessary, a surface damp proof membrane or an asphalt screed applied before installation of carpet tiles.
- iv) Raised access flooring panels have a tendency to settle shortly after installation and this should be taken into account when assessing the appearance of a carpet tile installation fitted onto such flooring systems. Adhesive manufacturers' instructions must be followed.

Underfloor Heating

Carpet tiles are excellent thermal insulators (Tog value typically 0.7 – 2.0) and this should be taken into account when using with underfloor heating systems. When used with underfloor heating systems the temperature at the surface of the subfloor must not exceed 27C.

General Installation

Tiles should be protected from dirt and dust before, during and after installation. Failure to do so may affect the performance warranty.

Batch Matching

As with any floor covering, the use of different production batches will always result in visible shade differences. It is essential that different batches are not mixed in the same area. When ordering tiles, each floor area (plus spares) must be specified from the same batch. The batch number is clearly marked on each box of carpet tile and must be checked before commencement of installation.

Inspection

Boxes should be checked to ensure that the correct tile type, colour, batch number and quantity have been received and that the tiles are in good condition. No claim will be accepted for incorrect colour, pattern or obvious damage if the tiles have been fitted.

Any carpet tile can be susceptible to a certain amount of pile distortion when they are taken out of their boxes. This may result in visual differences in appearance between tiles during, and immediately following, installation.

After fitting and assuming normal prevailing conditions (under dynamic foot movement) this visual differential will diminish as the pile recovers to its natural position. Recovery will normally take place soon after installation. However, in some cases it can take up to six weeks for the pile to fully condition and develop a uniform visual appearance. Pile distortion is not a manufacturing defect,

Conditioning

Prior to installation, the carpet tiles must be allowed to acclimatise in opened boxes for at least 24-48 hours in the atmospheric conditions which will prevail during use. This is particularly important if the tiles have been stored or delivered in conditions of extreme temperature and/or humidity.

Installation - Fitting

The following instructions are intended to draw the fitter's attention to current "Best Practice", and must be followed for the relevant product guarantees to be valid. Installation must be carried out in accordance with the requirements of BS 5325:2001 or any subsequent revision and the guidelines contained in the Contract Flooring Association "Guide to Contract Flooring" manual.

Setting Out

The location of the starting point in an installation is usually determined by the fitter to maximize the yield. This may be anywhere in the room, but would normally be located as near to the true centre as possible.

Having established the starting point for the installation, making some check measurements or dry laying a few rows of tiles will help to identify any potential problems or necessary adjustments to avoid small perimeter cuts.

Pile Direction

The arrow marks on the reverse of every tile indicate the direction of pile lay. The preference of the specifier as to "monolithic", "tessellated" or other visual effects must be confirmed before tiles are installed.

Note: the term 'broadloom' is often used as an alternative description of monolithic. Whichever term is used, it refers to the installation direction of the carpet tiles. It does not mean that the installation will be viewed as seamless. Tile edges are most visible in new installations.

The quality of the carpet tiles construction will help to reduce the visibility of tile edges over time (with traffic and regular vacuuming) however, tile edges may remain visible during the life of the product in non-or low trafficked areas.

Pile trapping – ensure that each tile butts up to its neighbour as tightly as possible without causing peaks. It is essential that no pile material becomes entrapped between tiles.

Tile Fixing Carpet tiles must be adhered using a high grab, all-over tackifier adhesive system from a suitable manufacturer.

The tackifier adhesive must be spread evenly over the entire floor area with particular attention to edges – this will ensure any perimeter tile cuts are fully bonded. Failure to fully bond all full tiles and tile cuts may result in individual tiles shifting and lifting

Where perimeter tiles are not constrained by fixtures e.g. walls, edge strips etc., it is recommended that such tiles are adhered using a permanent adhesive from a suitable manufacturer is recommended.

Adhesives must be applied according to the manufacturer's instructions and it is essential that tackifier adhesives are allowed to dry to a clear, tacky finish before laying the carpet tile. Failure to do so could result in a permanent non-release bond.

Note: adhesive coverage rates will be reduced on very porous subfloors such as plywood or sand cement screeds.

Fitting to stair treads and risers

Appropriate stair nosing's must be used for every tread. Tiles must be bonded securely to the stair tread using a permanent bond adhesive from a suitable manufacturer is recommended. Tiles to risers should also be permanently adhered using a suitable contact adhesive.

It important that tiles are fitted to treads with the pile direction facing inwards towards the riser and fitted to risers with the pile direction facing downwards towards the tread.

Tiles with Resilient Backings These should be installed according to the general instructions outlined above, but special note must be taken of the following:

- i) Prior to installation, carpet tiles with resilient backings should be removed from their boxes as part of the conditioning process and stacked not more than 12 tiles high. The stacked tiles must be allowed to acclimatise for at least 24 hours in the atmospheric conditions which will prevail during use. This is particularly important if the tiles have been stored or delivered in conditions of extreme temperature and/or humidity.
- v) Because of the potential “spring-back” effect which can lead to gapping, it is essential that resilient-backed tiles are tightly fitted. It is essential that no pile material becomes entrapped between tiles.
- vi) Softbac® tiles should be firmly placed against adjacent tiles. Do not slide Softbac® tiles into place.

Maintenance Appropriate care and maintenance is essential to longevity and appearance retention and is necessary to maintain product warranties.

Note:

Upright vacuum cleaners with a mechanically powered brush should be used on all carpet tiles.

Performance and Construction These details vary according to carpet selection. Refer to the specific product literature for further information.

Additional Reference documents/Information BS5325:2001

The CFA Guide to Contract Flooring (Tel: 01159 411126)

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Carpet tiles maintenance information:

Routine Maintenance

It has been established that 80% of the soil, which can be deposited in a carpet, usually originates from outside the building, hence the provision of suitable barrier areas, these are the first line of defence against soiling.

However, carpets will still collect soil and so the following recommendations are designed to minimise the effects of soil on both the durability and appearance of your carpet.

The frequency of cleaning must be based on the specific needs of trafficked areas within your facility.

Vacuum Cleaning An effective vacuum cleaning programme is essential for the success of any carpet maintenance plan.

Grit and dirt if not vacuumed thoroughly can become an abradant that could damage fibres, if left in the carpet to build up. In addition to removing soil vacuum cleaning also enhances the appearance of the product by lifting and restoring the pile.

The use of proper equipment and techniques are critical to the success of any vacuum cleaning programme and heavy-duty upright vacuums with a brushing action are recommended.

Carpet sweepers take up surface soil but do not remove soil which was worked down between the tufts. Therefore, for thorough cleaning a vacuum cleaner which incorporates strong suction together with a revolving brush agitator or beater bar should be used.

Height adjusters are fitted to most cleaners to allow efficient cleaning of carpets of varying constructions. The frequency of vacuuming is determined by visual inspection but ideally should be carried out daily.

Heavy traffic areas such as lobbies, entrances/ exits and barrier mats - particularly those exposed to various weather conditions - may require more frequent vacuum cleaning and any maintenance programme should reflect that. Vacuuming these areas more regularly will help prevent soil from being trafficked into other areas.

In areas such as Conference and Boardrooms, vacuum cleaning can be carried out, when necessary, though not less than once a week. For thorough cleaning be sure movements are slow and methodical when vacuuming.

Note: For any other needle punched carpet with a pile or structure, a suction only vacuum cleaner should be used.

Pile Lifting Should be used to precondition carpets for general cleaning. This is an effective method of lifting crushed pile and loosening dry soil.

Heavily trafficked areas using a cut-pile product will particularly benefit from this being carried out on a weekly basis. Loop pile products require less intensity and can be pile lifted less frequently.

For best results apply the pile lifting machine against the direction of the pile. Note: Pile lifting should not be carried out on any other needle punched carpet.

Spot Cleaning Localised stains caused by accidental spillage will occur.

As part of the maintenance programme daily removal of spots and spills should be carried out to help maintain an acceptable appearance level between scheduled cleanings.

Immediate action should be taken when confronted with spots and spills where practically possible; this will reduce the probability of a permanent stain. Endeavour to classify the stain – i.e., Water, Oil, or a combination of both – as it is important to use those solutions and techniques which are appropriate for the specific type of stain to be treated.

When carrying out spot cleaning always remember:

DO

- Take immediate action where practically possible to avoid permanent staining
- Try to classify the stain. • Use a clean white cloth and work from the outer edge towards the centre of the spill to prevent spreading.
- Remove excess moisture using absorbent cloths, towels etc and protect the cleaned area until the carpet is completely dry.

DO NOT

- Rub or agitate vigorously as this could distort or damage the pile and create lighter patches on the floorcovering.
- Over wet the carpet. Treating water-based stains for liquid spills, blot up as much of the liquid as possible with a clean, white cloth. If the spill is semi-solid or has hardened, gently scrape it with a spoon or spatula and then blot the spot with a damp sponge.

Always work the outer edge of the spot towards the centre. Never rub across a wet spill in a manner that causes the stain or contamination to be spread from the original area.

After blotting water-based spots, promptly remove the remaining residue with a small amount of dry compound. Sprinkle the compound over the spot and use a hand brush to gently agitate the compound. Allow the area to dry (about 15-30 minutes) and then brush the compound again. If the compound seems to stick to the carpet, gently brush the area again, and then vacuum. Repeat the application if necessary.

Avoid aggressive brushing as this may damage the pile. For difficult to remove coffee, tea, juice or soft drink stains, use a recommended stain remover after spot cleaning.

Apply according to the instructions and leave to dry. Repeat if necessary.

Contact your local flooring distributor for more information on recommended stain removers.

Treating oil-based stains

For the removal of oily stains such as paint, grease, tar, asphalt, etc, specific carpet spotters should be used. Colourfastness should always be checked by applying the solution to an inconspicuous part of the carpet. Spray the spotter onto a clean, white cloth and press in onto the carpet. Check for any dye transfer to the cloth. If colour transfer has occurred, then do not use the solution. Otherwise, apply the spotter sparingly to a clean, white cloth and press the cloth onto the stain.

Again, do not rub across the stain but wipe gently from the outer edge towards the centre of the stain. Repeat the procedure until the stain has been removed and after any chemical treatment, the spot should be flushed out with water to remove any excess.

Protect the freshly clean area until the carpet is completely dry.

Follow with an application of dry compound as explained in treating water-based stain. Note: Having a small extractor machine available can be easier to flush out any spill.

Spotting of heavy spillages may not remove what is resting at the base of the pile. This can only be effectively removed by hot water extraction. Routine maintenance Removing Chewing Gum To remove chewing gum, spray type removers are recommended. Lightly spray chewing gum remover onto the affected area allowing the product to freeze the gum. Then use a blunt object to gently scrape off. Care should be taken not to damage the surface by using excess force or a sharp object. Any frozen particles should be removed as soon as possible either by gentle brushing or vacuum cleaning.

Interim Maintenance

Dry Extraction

This cleaning method is easy to use and relatively non-disruptive, as areas can be used almost immediately after cleaning. Another benefit of this method is that it doesn't leave any sticky detergent residue that can re-attract soiling. Firstly, thoroughly pile lift or vacuum clean the carpet and pre-spray with a suitable traffic lane cleaner. Then spread the dry compound onto the carpet and gently brush. Allow to dry for 30 minutes before vacuuming the particulate and soil from the carpet.

Note 1: For needle punched products vacuuming and hot water extraction are the only recommended procedures.

Encapsulation

The encapsulation method is a recent addition to the carpet cleaning possibilities. This periodical cleaning method combines outstanding results with reduced inconvenience to the workforce. Encapsulation cleaning is quick and easy. First, a solution with 'crystals' is sprayed onto the floor and brushed into the carpet. The crystals encapsulate the dirt. The solution evaporates quickly, after which the crystals are easily removed during daily vacuuming. The main benefits of encapsulation are the reduced water usage (90% less compared to water extraction) and short drying time (10 minutes).

Note: Encapsulation solutions are available for spot cleaning as well as periodic maintenance.

Bonnet Cleaning

The hot water extraction method is generally most desirable; however, the bonnet cleaning method may occasionally be needed as a supplement to allow the earlier introduction of traffic. As with all other maintenance methods, always prepare the carpet by vacuuming or pile lifting, then apply a bonnet cleaner.

Before drying begins, agitate the area utilising a low speed (175 rpm maximum) rotary floor machine to which a 100% cotton bonnet has been attached. Be extremely careful to cover the area thoroughly so that the carpet pile could be agitated in several directions to loosen attached soil and other contaminants. After approx. 15m² turn the

bonnet over and clean the same area if necessary. As the area is covered, soil and contaminants will accumulate in the bonnet, which should be rinsed with specific solutions, before proceeding. After the area has dried completely, the carpet should be vacuum cleaned, or pile lifted.

Note 1: The bonnet should be frequently checked for cleanliness as, once soiled, it will need to be replaced before proceeding.

Note 2: Care should be taken when using this method, especially on cut-pile carpets, as improper treatment can damage the yarn and fibre.

Periodic Maintenance

Hot water extraction

Despite regular vacuum and spot cleaning the carpets appearance will in time become dulled due to an accumulation of dirt and stains that regular cleaning cannot remove. It then becomes necessary to wet clean the carpet. The industry standard is that carpets are deep cleaned periodically using the hot water extraction process.

This method is effective in removing soil and residue from carpeting. It works by injecting water and cleaning agents into the carpet and suspending the dirt in the solution which is then removed by a built-in vacuum system. Always prepare the carpet by spot cleaning and thorough vacuum cleaning prior to hot water extraction.

The method uses a hot water extraction machine filled with extraction liquid diluted according to the manufacturer's instructions.

The recommended technique is to operate the floor wand or self-contained extractor by engaging the valve or button which releases the cleaning solution and pulling or pushing the equipment for approximately 1 to 2 metres (or at a comfortable distance). The solution valve should be released before reaching the end of the pass to ensure that all the solution is vacuumed up. The same area should be crossed two or three times again with the solution valve off to remove as much moisture from the carpet as possible.

To continue to clean the floor, overlap approximately 5 cm's into the area already cleaned and proceed as described above. In extremely soiled areas it may be necessary to make two or three additional passes with the solution valve on. Then make several additional passes with the solution valve off to remove as much moisture from the area as possible, always being careful not to over-wet the carpet. To reduce drying times, fans may be placed on wet areas during cleaning.

The carpet should be left and allowed to dry for as long as possible before use, and the procedure should be finished with a thorough pile lifting.

DO NOT

- Allow water temperatures to exceed 50°C (120°F) on the carpet.
- Allow foot traffic on the carpet until it is completely dry as it can cause fibre damage and rapid re-soiling.

Note:

For other needle punched products, hot water extraction and vacuum cleaning are the only recommended maintenance methods.

Periodic Maintenance

Some commercial carpet cleaning solutions are very harsh and can damage both the surface pile of the carpet and the backings. It is therefore important to select solutions that meet the basic standards outlined here and to evaluate each product before using it.

Modular flooring may be maintained using several widely recognised and readily available carpet cleaning agents.

Generally:

- Products with pH levels over 9.5 or which contain toxic, odorous, or flammable solvents should be avoided.
- Products designed for use in hot water extraction equipment should not contain oil-based defoamers (based defoamers can leave oily residues causing rapid re-soiling).
- No product should include optical brighteners (optical brighteners can adversely affect the colouration of the carpet).
- All cleaning solutions should be tested

Floor Care Cleaning Solutions

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- No product should include optical brighteners (optical brighteners can adversely affect the colouration of the carpet).
- All cleaning solutions should be tested for sticky residues that may cause resoiling.
- To test a solution, a small amount of concentrated detergent/cleaning solution should be poured into a small, clean glass dish. Allow the solution to air dry completely (24 hours minimum).
- Break up any hard residue on the surface of the glass dish and examine it. If the residue can be characterised as dry powder, dry flakes or dry crystals, the solution is acceptable. If the residue appears oily, greasy, sticky or in waxy flakes, the solution is not acceptable since it would be likely to contribute to rapid re-soiling.
- Spotting solutions should be used as required and should always be flushed out with clean water after the spot has been treated.

Cleaning Solution Specifications

- Maximum pH 9.5 in dilution preferred.
- Solvents at a maximum of 10% by volume.
- No optical brighteners

Miscellaneous Maintenance

Carpet tile replacement Carpet tiles that have become badly stained or damaged can be replaced from attic/spare stock.

A damaged tile can be removed by slipping a knife edge under one corner and peeling it from the floor if they have been installed using traditional glues or tackifiers.

When damaged carpet tiles are being replaced, care should be taken to ensure that the face pile of the surrounding tiles is brushed upright, and that the replacement tile is fitted carefully to prevent pile fibres from becoming trapped between joints.

Carpet tiles taken from attic/spare stock are likely to have a newer appearance than the ones being replaced.

If random designs are used, the recommended installation method is nondirectional and old and new tiles are more likely to visually integrate completely into the floor design.

In other ranges, any new tiles can be noticeable.

If this is the case the new tiles should be installed in less visible areas.

Any flooring product should follow British Standard recommended installation instructions.

Access floors

The relevant access floor manufacturer should be contacted for recommendations for carpet cleaning in relation to the methods and techniques recommended in this guide. Low-moisture methods and techniques are generally preferred.