

Installation Guide for Contract Carpets

Woven Carpets in contract areas

Introduction

Cavalier Carpets Ltd manufactures a range of traditional woven carpets in various designs qualities and widths.

As with all textile floor coverings it is essential that correct installation techniques, materials, accessories and tools be used if a trouble free installation is to be achieved.

The following instructions will assist in saving time on the installation and avoid costly callbacks for re-stretching etc.

Sub-floor

Before laying the carpet, the sub-floor should be checked to ensure that it is in good condition to receive carpet. The sub-floor should be clean, free from contamination, smooth and free from indentations and ridges which could have an effect on the appearance and wear of the carpet.

When installing carpets onto concrete or cementitious sub-floors, it is extremely important to ensure that the sub-floor is dry and the relative humidity is below 75%. This can be checked using a Hygrometer or other specialist instruments such as a Protimeter.

Conditioning

All textile materials, adhesives, etc should be conditioned in the area in which they are to be used for a period of 24 hours before they are installed.

Tackless Gripper Installation

Interlays

On wooden floors it is recommended that a paper felt interlay be used to prevent the passage of direct contaminated air through gaps, causing soiling of the pile surface.

Underlays

The correct type of underlay is important and plays a key role in prolonging the life of the carpet. Although a degree of resiliency is important for providing underfoot comfort, a firm uniform thickness underlay is recommended.

Accessories

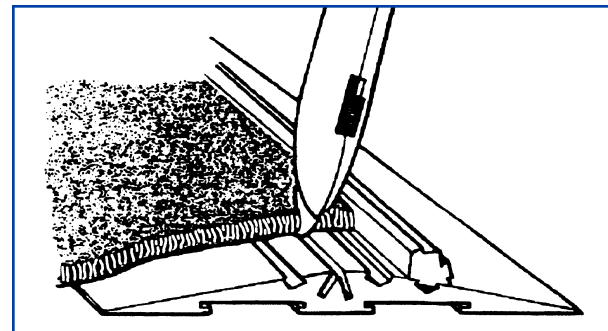
When using the tackless gripper system of installation, medium pin height gripper should be used. All naplock bars should be of the raised base type. Depending on the type of sub-floor and the location, the tackless gripper is fixed either by mechanical means or adhesives. On sound wooden floors pre-nailed gripper can be used, on concrete floors adhesive e.g. PA5 or gripfil may provide a more secure fixing. Where the sub-floor consists of thermoplastic tiles it is recommended that the tiles be cut back from the wall and the gripper secured to the sub-floor by a suitable adhesive, or drilling and plugging in certain installations.

The basic procedure for installing carpets in contract situations using the tackless gripper system is the same as for domestic installation. However in this case it is recommended that architectural gripper, with three rows of pins should be used. If this is not possible then standard gripper should be used double backed.

Cutting Woven Carpets

For longitudinal seams an accurate cut using a sharp bladed knife is made between the rows of chain warps. For cross-joints the carpet is cut between the weft shots.

It is recommended that all cut edges be sealed with an appropriate sealing compound e.g. latex. Carpets can also be cut from the top using a special tool such as the Invisiseamer.



Seaming

There are several systems which can be used to seam two pieces of carpet together including:

- Sewn seams
- Hot-melt seaming tape
- Electro-seaming tape

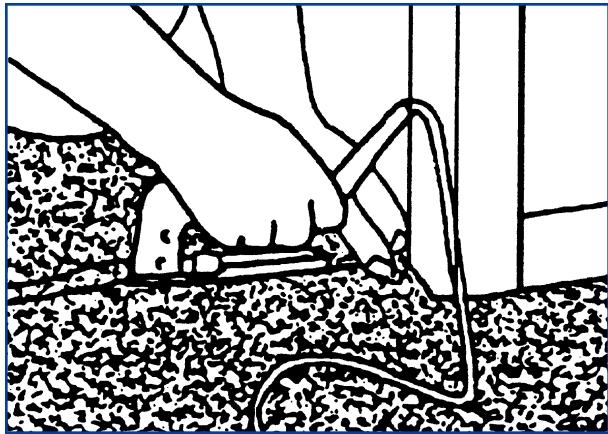
All of the above methods can be used to produce satisfactory seams on woven carpets.

Sewn seams can be made in the workroom using special sewing machines or by hand.

Machine sewing is usually carried out when seaming together narrow goods e.g. 27" (69cm) or 36" (91cm) carpets. Hand sewing is usually carried out on-site using a variety of stitches e.g. crowfoot stitch or overlock stitch.

In order to obtain a close fitting seam using methods other than sewing it may be necessary to remove the selvage from at least one of the carpets being joined. If this is the case it is essential to apply a seam sealing cement to the cut edge of the carpet.

The most widely used method is the hot-melt tape system. In this system the two pieces of carpet to be joined together are butted together with the joint centred over the centre of the seaming tape. After checking the temperature setting on the iron and the rating of the tape, the iron is moved along the tape to melt the adhesive. The carpets are then pressed into the molten adhesive. Care should be taken to ensure that pile is not trapped in the molten adhesive. A flat weighted board on top of the completed seam helps to keep the seam flat while the adhesive cools.



A low melt tape is recommended and care should be taken to ensure that the iron runs in the direction of the pile lay.

The use of a grooming or seam roller helps to pull the pile of the carpet together and improves the penetration of the adhesive into the back of the carpet. Care should be taken when using this type of roller on velour type products. Any marks left by the grooming roller should be brushed out immediately.

If the tackless gripper system of installation is being used the two pieces of carpet are first stretched onto the gripper at each end of the room. The hot melt tape is cut longer than the seam, with the ends doubled over and fixed the pins of the gripper. This ensures that the iron will activate the tape right up to the end of the seam.

Stretching Procedures for Woven Carpets

Because of the construction it is important to note that woven carpets stretch more in the warp direction. The higher the quality of the carpet the more difficult it is to stretch in the weft direction.

In contract situations the use of a power stretcher is necessary to obtain the correct tension.

Double Stick Systems

Currently there are several double-stick systems in commercial use.

Several are based rubber underlays one on an advanced polyurethane polymer and two are compressed felt underlays.

There are slight differences in the systems, but the basic principal is the same whereby the underlay is secured to the sub floor with a tackifier, and the carpet is bonded to the underlay with a permanent adhesive. In one case the tackifier has been pre-applied to the underlay.

Step 1

A recommended tackifier is applied to the sub-floor using either a notched trowel or a roller. Care should be taken to ensure that the tackifier is applied evenly without leaving pools in low spots. It is important to allow the tackifier to dry completely before laying the underlay.

Step 2

After the tackifier has dried completely, the underlay is laid direct into the tackifier. Effectively this creates a new sub floor onto which the carpet can be laid.

A gap of approximately 6mm (1/4") should be left around the perimeter of the area to allow for a tuck finish.

In some instances tackless gripper can also be used around the perimeter of the room for extra security of fixing.

Step 3

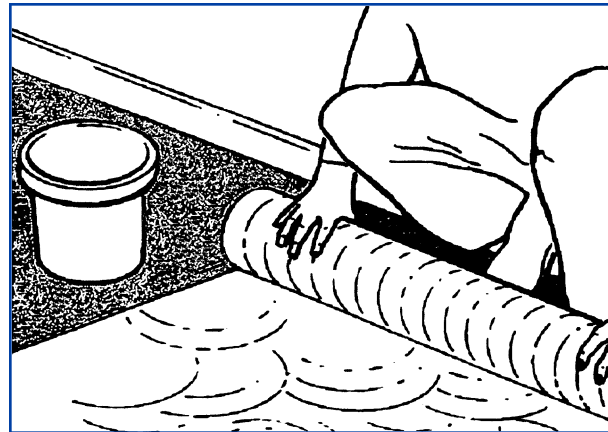
The carpet is laid out and roughed out to size in the same way as for conventional fitting. When the position of the carpet has been determined it is folded back so that the permanent adhesive can be applied.

Step 4

Using a 2.4mm notched trowel, the adhesive is applied to the back of the underlay and the carpet is then laid into the wet adhesive. The unadhered carpet is now folded back and the procedure repeated. A glider is then used to ensure that the adhesive is transferred to the back of the carpet.

In a multi-width installation the seams should be at right angles to the seams in the underlay.

All seams must be sealed with a seam sealer.



Secondary Backed Tufted Carpets in Contract Areas

Introduction

Cavalier Carpets Ltd broadloom tufted carpets are constructed of pile yarns tufted into a woven polypropylene primary backing and backed with either Lobac polypropylene secondary backing, or jute secondary backing to provide the correct degree of dimensional stability and flexibility.

For specific contract situations, unitary backing can be applied. As with all textile floor coverings it is essential that correct installation techniques, materials, accessories and tools to be used if a trouble free installation is to be achieved.

The following instructions will assist in saving time on the installation and avoid costly callbacks for re-stretching etc.

Sub-floor

Before laying the carpet, the sub-floor should be checked to ensure that it is in good condition to receive carpet. The sub-floor should be clean, free from contamination, smooth and free from indentations and ridges which could have an effect on the appearance and wear of the carpet.

When installing carpets onto concrete or cementitious sub-floors, it is extremely important to ensure that the sub-

floor is dry and the relative humidity is below 75%. This can be checked using a Hygrometer or other specialist instruments such as a Protimeter.

Conditioning

All textile materials, adhesives, etc should be conditioned in the area in which they are to be used for a period of 24 hours before they are installed.

Tackless Gripper Installation

Interlays

On wooden floors it is recommended that a paper felt interlay be used to prevent the passage of direct contaminated air through gaps, causing soiling of the pile surface.

Underlays

The correct type of underlay is important and plays a key role in prolonging the life of the carpet. Although a degree of resiliency is important for providing underfoot comfort, a firm uniform thickness underlay is recommended.

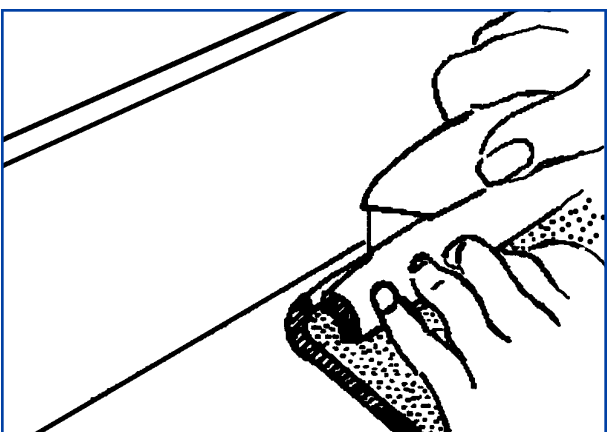
Accessories

When using the tackless gripper system of installation, medium pin height gripper should be used. All naplock bars should be of the raised base type. Depending on the type of sub-floor and the location, the tackless gripper is fixed either by mechanical means or adhesives. On sound wooden floors pre-nailed gripper can be used, on concrete floors adhesive e.g. PA5 or gripfil may provide a more secure fixing. Where the sub-floor consists of thermoplastic tiles it is recommended that the tiles be cut back from the wall and the gripper secured to the sub-floor by a suitable adhesive, or drilling and plugging in certain installations.

The basic procedure for installing carpets in contract situations using the tackless gripper system is the same as for domestic installation. However in this case it is recommended that architectural gripper, with three rows of pins should be used. If this is not possible then standard gripper should be used double backed.

Cutting Cut-Pile Secondary Backed Tufted Carpets

The most common method of cutting secondary back tufted carpets is from the back. A chalk line is struck on the back and using a straight edge as a guide a cut is made using a sharp knife or back cutter. Only the backing of the carpet should be cut and not the pile. Carpets can also be cut from the top using a special tool such as an Invisiseamer.



Seaming

There are several systems which can be used to seam two pieces of carpet together including:

- Hessian tape & latex adhesive
- Electro-seaming tape
- Hot-melt seaming tape
- Cold weld adhesive tape

The most widely used method is the hot-melt tape system. In this system the two pieces of carpet is to be joined together are butted together with the joint centred over the centre of the seaming tape. After checking the temperature setting on the iron and the rating of the tape, the iron is moved along the tape to melt the adhesive. Care should be taken to ensure that pile is not trapped in the molten adhesive. A flat weighted board on top of the completed seam helps to keep the seam flat while the adhesive cools.

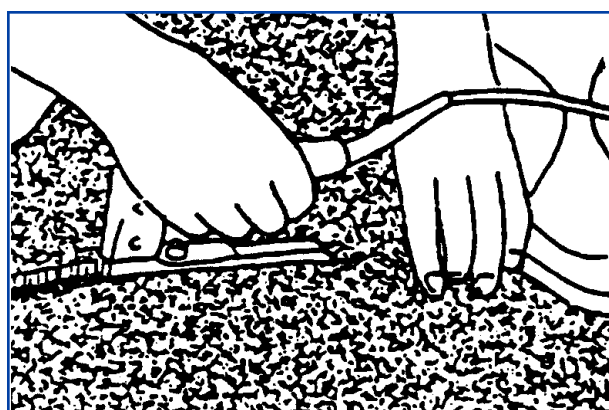
A low melt tape is recommended and care should be taken to ensure that the iron runs in the direction of the pile lay.

The use of a grooming or seam roller helps to pull the pile of the carpet together & improves the penetration of the adhesive into the back of the carpet. Care should be taken when using this type of roller on velour type products. Any marks left by the grooming roller should be brushed out immediately.

If the tackless gripper system of installation is being used, the two pieces of carpet are first stretched onto the gripper at each end of the room. The hot melt tape is cut longer than the seam with the ends doubled over & fixed to the pins of the gripper.

This ensures that the iron will activate the tape right up to the end of the seam.

Before activating the hot melt tape a bead of seaming cement should be applied along the length of the seam. This will help prevent fraying and delamination.



Stretching Procedures for Secondary Backed Tufted Carpets

Lobac secondary backed tufted carpets require special stretching procedures which must be followed if a trouble free installation is to be achieved.

The installation of secondary backed carpets, using the tackless gripper perimeter fixing method over an underlay, requires the use of a power stretcher is a major cause of having to re-stretch a carpet, because the knee kicker just cannot create and hold the stretch that is needed to keep the carpet under the correct tension.

The amount of stretch for Lobac secondary backed tufted carpets is between 1 and 1.5%.

Jute secondary backed carpets should be stretched until they are drum tight.

Double Stick Systems

Currently there are several double stick systems in commercial use.

Several based on rubber underlays one on an advanced polyurethane polymer & two are compressed felt underlays.

There are slight differences in the systems, but the basic principal is the same whereby the underlay is secured to the sub floor with a tackifier, and the carpet is bonded to the underlay with a permanent adhesive. In one case the tackifier has been pre-applied to the underlay.

Step 1

A recommended tackifier is applied to the sub-floor using either a notched trowel or a roller. Care should be taken to ensure that the tackifier is applied evenly without leaving pools in low spots. It is important to allow the tackifier to dry completely before laying the underlay.

Step 2

After the tackifier has dried completely, the underlay is laid direct into the tackifier. Effectively this creates a new sub floor onto which the carpet can be laid.

A gap of approximately 6mm (1/4") should be left around the perimeter of the area to allow for a tuck finish.

In some instances tackless gripper can also be used around the perimeter of the room for extra security of fixing.

Step 3

The carpet is laid out and roughed out to size in the same way as for conventional fitting. When the position of the carpet has been determined it is folded back so that the permanent adhesive can be applied.

Step 4

Using a 2.4mm notched trowel, the adhesive is applied to the back of the underlay and the carpet is then laid into the wet adhesive. The unadhered carpet is now folded back and the procedure repeated. A glider is then used to ensure that the adhesive is transferred to the back of the carpet.

In a multi-width installation the seams should be at right angles to the seams in the underlay. All seams must be sealed with a seam sealer. It is essential that manufacturers instructions for adhesives and tackifiers should be followed.

Direct Adhesion

In this system the carpet is adhered directly to the sub-floor without the use of an underlay.

Step 1

The carpet is laid out and cut oversize by about 50mm to allow for subsequent trimming in. The position of any seams is marked on the sub-floor using a chalk line.

Step 2

The carpet is turned back to about half its length or width, as appropriate, and the adhesive spread on the sub-floor using a notched trowel of the correct depth. The carpet is then laid into the web adhesive. The carpet is then rolled or glided to ensure adhesive transfer. The procedure is repeated for the second half of the carpet.

Step 3

The edges of the carpet are trimmed to ensure a neat finish. After approximately 1 hour the carpet is glided or rolled to ensure correct adhesion.

References

It is strongly recommended that the installer is fully conversant with the valuable information and recommendations contained in the following publications.

BS 5325: 1996 Code of Practice for the Installation of Textile Floor coverings

The Official NICF Carpet Installation Manual

References to adhesive manufacturers leaflets is also recommended.

Impervious Backed Tufted Carpet

Introduction

Cavalier Carpets Ltd manufactures impervious backed tufted carpets designed and engineered for areas such as hospitals, nursing homes and health care establishments.

The following instructions will assist in saving time and ensuring a trouble free installation.

Sub-floor

Before laying the carpet, the sub-floor should be checked to ensure that it is in good condition to receive carpet. The sub-floor should be clean, free from contamination, smooth and free from indentations and ridges which could have an effect on the appearance and wear of the carpet.

In concrete floors, all cracks should be filled and surface projections removed in accordance with instructions in CP 102 and BS 8203 (see references).

Uneven timber floorboards can adversely affect the appearance of carpet, and these floors should be treated in accordance with instructions in BS 5325.

When installing impervious carpet onto concrete or cementitious sub-floors, it is extremely important to ensure that the sub-floor is dry and the relative humidity is below 75%. This can be checked using a Hygrometer or other specialist instruments such as a Protimeter.

Conditioning

Impervious backed carpet and application adhesives, etc should be conditioned in the area in which they are to be used for a period of 24 hours before they are installed.

Direct Adhesion

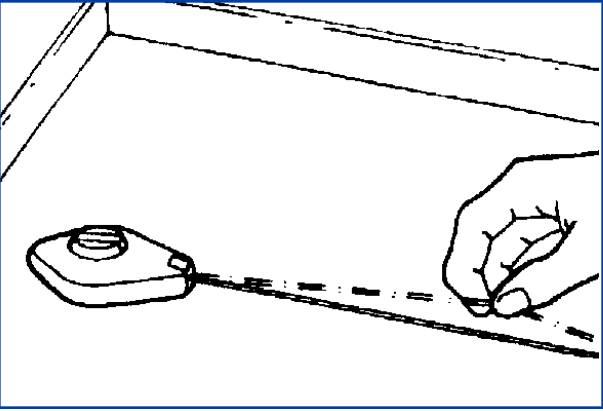
Impervious backed carpet should be installed using the direct adhesion system.

In this system carpet is adhered directly to the sub-floor without the use of an underlay.

Step 1

With HD impervious foam backed carpets the starting point for the installation, when using multiple widths, is the first seam. The position of the seams is marked on the sub-floor using a chalk line. The widths of carpet are laid out & cut oversize by about 50mm to allow for subsequent trimming in.

The edges of the carpets are trimmed using a steel straightedge and a foam-backed cutter.



Step 2

After both edges of the carpet have been prepared one width is overlapped by approximately 1/8" to 1/4" along the length of the seam. The two lengths are then turned back to expose the sub-floor. Using the correct notched trowel, usually 2.4mm notches, the adhesive is trowelled out. One width is now laid into the wet adhesive. Using an adhesive dispenser a bead of foam backed seaming cement is applied to the line of the primary backing.



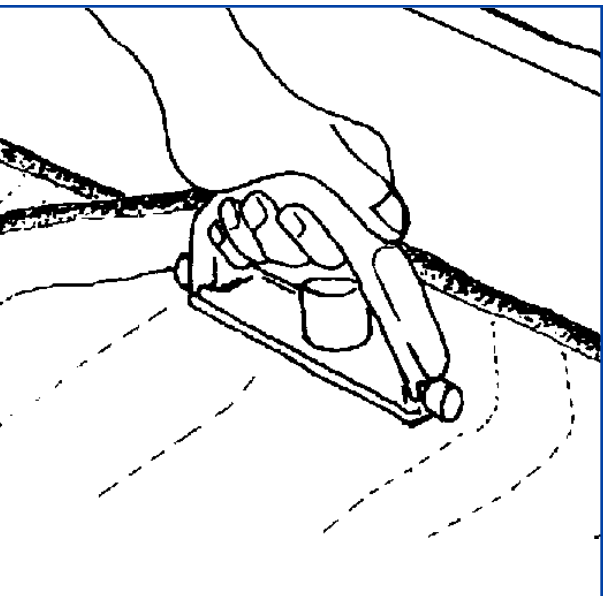
Step 3

The second width of carpet is now laid into the wet adhesive to form a compression joint with the first width. Any surplus seaming cement which may find its way onto the pile of the carpet should be removed immediately using a clean white rag and seaming cement solvent.

The carpet is then glided to ensure adhesive transfer to the back of the carpet and ensure that it is adhered all over.

Step 4

Trim the carpet around the perimeter of the room using either a sharp bladed knife or a foam back carpet trimmer.



References

It is strongly recommended that the installer is fully conversant with the valuable information and recommendations contained in the following publications.

BS 5325: 1996 Code of Practice for the Installation of Textile Floor coverings

BS 8203: 1996 Code of Practice for the installation of sheet and tile flooring

CP 102: Code of Practice for the protection of buildings against water from the ground.

The Official NICF Carpet Installation Manual

References to adhesive manufacturers leaflets is also recommended.

Carpet Tiles

Introduction

Cavalier Carpets Ltd manufactures a range of carpet tiles which have been specifically designed and engineered for use in a wide range of locations.

Sub-floor

Before laying the carpet, the sub-floor should be checked to ensure that it is in good condition to receive carpet. The sub-floor should be clean, free from contamination, smooth and free from indentations and ridges which could have an effect on the appearance and wear of the carpet.

In concrete floors, all cracks should be filled and surface projections removed in accordance with instructions in CP 102 and BS 8203 (see references).

Uneven timber floorboards can adversely affect the appearance of carpet, and these floors should be treated in accordance with instructions in BS 5325.

When installing impervious carpet onto concrete or cementitious sub-floors, it is extremely important to ensure that the sub-floor is dry and the relative humidity is below 75%. This can be checked using a Hygrometer or other specialist instruments such as a Protimeter.

Conditioning

Before cutting and installing carpet tiles they should be conditioned in the area in which they are to be used for a period of 24 hours before they are installed.

This is particularly important if the tiles have been stored or transported in conditions of extreme temperature & humidity.

Setting Out

In order to achieve a high standard of installation it is important to plan the installation carefully. The starting point

of an installation is usually the centre of the area to be tiled, however it may be that this will not be the final starting point as allowances will have to be made for doorways, partitions, dominant features and perimeter tiles etc.

Having determined the centre point of the area to be tiled two datum lines should be drawn at right angles to each other, which are used for determining the working base lines. In order to obtain a balanced installation it is advisable to have a dry run.

Wherever possible the installation should be planned so that the perimeter tiles are at least half size or larger.

Laying the Tiles

The preferred method of securing the tiles of the sub-floor is by the use of a tackifier adhesive. During the installation it is important that the tiles are firmly butted up together.

Continual checks should be made to ensure that the tiles are placed together with the correct firmness, neither too loose as to allow gaps, or too tight as to cause buckling.

Having determined the two datum lines, the tiles are built up in a pyramid pattern using the step technique. Care must be taken to ensure that the pile yarn is not trapped between the tiles. When the first quadrant has been completed the remaining three quadrants can be installed in the same manner. It is important that 'growth' takes place along the imaginary diagonal, not along the datum lines.

Cutting the Perimeter Tiles

Having secured the last full tile the following method can be used to cut the perimeter tile to ensure a close fit to the boundary wall.

The tile to be cut for the perimeter is placed directly on top of the last fitted full tile, a third tile is now placed on top of this tile butting up against the wall. A small mark, or cut is now made on the perimeter tile at each side where the third tile overlaps it.

Using a straight edge the two marks are joined up and the tile cut from the back. The cut tile will fit exactly between the last full tile and the wall.

Laying Tiles on Stairs

When laying tiles on stairs, the tiles are cut to fit each individual stair and riser. The pile direction should be running down the stair. Nosings should always be used on stairs. Where necessary the nosings should be packed up with plywood to ensure that the pile surface is level with the nosing.

References

It is strongly recommended that the installer is fully conversant with the valuable information and recommendations contained in the following publications.

BS 5325: 1996 Code of Practice for the Installation of Textile Floor coverings

BS 8203: 1996 Code of Practice for the installation of sheet and tile flooring

CP 102: Code of Practice for the protection of buildings against water from the ground.

The Official NICF Carpet Installation Manual

References to adhesive manufacturers instruction leaflets is also recommended.



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