



RESIDENTIAL CUSHION VINYL INSTALLATION INSTRUCTIONS

The following guidelines are provided for the installation of Beauflor Cushion Vinyl flooring using Beauflor installation sundries. To obtain the best results, we suggest using a professional installer. Improper installation can influence your warranty. It is important to fully understand what is required before installation begins. Beauflor continuously seeks to make technical advances in product design, installation methods and accessories. To ensure you have a copy of our most recent installation guidelines, always refer to www.beauflor.us or call 877.362.5562 prior to installation.

Cushion vinyl flooring is intended for interior use only. Consider the amount and type of foot traffic an area receives when selecting a Beauflor cushion vinyl product. Softer vinyl flooring is not suitable for areas which receive commercial foot traffic, or where it is likely to be subject to heavy, concentrated, rolling loads like those from casters or wheels.

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Storage & Handling

Beauflor vinyl flooring must be stored in an indoor climate controlled area protected from the elements. The storage area must be dry and free from direct sunlight with an ambient temperature between 65°F and 85°F. To avoid yellowing, ensure that the storage area is free of any contamination or combustion producing appliances.

Never store or transport in a manner that would distort the product. If the material is pre-cut and stored for some time, it must be rolled face out around a cardboard tube before installation. Six feet wide rolls should be stored upright and securely fastened, rolls over 6 feet wide should be stored horizontally and not stacked.

Visual inspection

Installer/Owner are responsible for final inspection. Products should be inspected under adequate lighting for color, finish, style and quality prior to installation. Installation is considered acceptance. If you're not satisfied with the flooring prior to installation, contact your retailer.

NOTE: Beauflor will not pay professional labor charges for material installed with obvious defects. Confirm you have enough floor covering and installation sundries at the jobsite to complete the installation before you begin.

Acclimation

Cushion vinyl, adhesives and installation sundries must be acclimated a minimum of 48 hours prior to installation. Jobsite temperatures should be maintained at a minimum temperature of 65°F and a maximum of 85°F in a relative humidity of 35-55% before, during and thereafter the installation.

Interior temperature should never be allowed to fall below 55°F.

If flooring material is to be pre-cut, it should be allowed to acclimate an additional 24-48 hours rolled face out around a sturdy cardboard tube intended for vinyl flooring. Store in a manner that will not distort product.

The material should be pre-cut (accurately) to fit the room 24 hours prior to installation. Roll the material face out again taking care not to damage the surface. Do not roll the material face in, until taking it into the room for installation. Prior to installation, lay the cushion vinyl flat for 2 hours at a room temperature of 65°F. If this isn't possible, the flooring should be loosely rolled and left in the area to be installed for at least 24 hours. This will make the floor more flexible and easier to handle.

Sheets of 6 feet wide floor covering should be rolled loosely and stored in an upright position for acclimation. Sheets of 13 feet wide floor covering should be cut to size and laid flat for acclimation.



Pre-cutting

Measure the maximum width and length of the room including recesses or doorways adding 6 inches to each dimension. Purchase the widest width possible to avoid unnecessary joints.

Adjust measurements to allow for pattern match if a seam is required. It is also important that each piece is cut from the same mother roll to ensure a true color match along the seam.

If pieces are cut from different rolls, please check with your supplier that these have the same batch number. If not, Beauflor will not accept responsibility for any color variation.



Rolls selected from the same batch must be installed in sequence, starting with the roll with the lowest batch number. Pay particular attention if the design needs to be laid in a reverse direction.

Subfloor

Underfloor heating

Beauflor cushion vinyl is suitable for radiant floor heating systems. Any existing floor covering should be removed. The system must be thermostat controlled and embedded in accordance with manufacturer's guidelines. The floor surface temperature should never exceed 80°F. This applies to both hydronic and electrical systems.

The radiant floor heating must be turned off and allowed to cool completely for 48 hours prior to and 48 hours after the installation of the vinyl flooring. During this period an alternative form of heating should be provided to maintain a room temperature of 65°F - 85°F. After installation, the temperature of the underfloor heating should be raised gradually, in increments of 5°F per day, until the desired temperature or until reaching 80°F.

Subfloor Conditions

All substrate preparation and testing procedures must conform to appropriate ASTM F710 guidelines. Subfloors must be clean, level, dry and structurally sound.

CLEAN: Remove all contaminants such as curing compounds, adhesive residue, paint, wax, solvents, grease or oil that will interfere with adhesive bond. All substrate contaminants must be mechanically removed. Apply Beauflor Isolate to encapsulate residual subfloor stains after mechanical cleaning. DO NOT USE LIQUID SOLVENTS OR ADHESIVE REMOVERS OR OIL BASED SWEEPING COMPOUNDS TO CLEAN SUBFLOORS. Remove soft floor coverings (vinyl, carpet, linoleum, cork, etc)

***Warning: if removal of existing resilient floor covering is required, follow all recommended Resilient Floor Covering Institute (RFCI) work practices at www.rfci.com.**

For dusty or porous concrete apply a coat of Beauflor Substrate Primer. For porous wood substrates apply a coat of Beauflor Substrate Primer.

LEVEL: : Any subfloor imperfections will telegraph through the new floor creating indentations or high spots causing uneven wear. High spots should be sanded down and low spots or cracks should be evened out with a latex fortified Portland cement compound. Do not fill concrete expansion joints. Inspect wood subfloors and fasten areas with loose boards or areas with vertical deflection.

DRY: Concrete subfloors require moisture testing conducted in accordance with ASTM F1869 Calcium Chloride Test or ASTM F2179 Relative Humidity in Concrete Slabs. Calcium Chloride moisture vapor emissions should not exceed recommended levels of 5 lbs. Per 1000 sq. Ft. In 72 hours. Relative Humidity In Situ probes should not exceed 75% RH. All tests should be performed and documented prior to beginning installation. For concrete substrates with excessive moisture test results, apply Beauflor Moisture Seal 95 in accordance with pail instructions.

Wood subfloors require no more than 14% moisture content when tested with pin type meter and must have a minimum 18" cross ventilated space between the bottom of the joist and ground. Exposed earth crawl spaces must be sealed with a polyethylene moisture barrier. For wood installed directly over concrete (sleeper construction), remove the wood and proceed with concrete subfloor guidelines.

PH LEVELS: pH level must be between 5 and 9



Beauflor isn't responsible for:

- joint or texture show through, ridging over subfloor joint, any raised areas due to an uneven surface (from fasteners such as nails...) in the subfloor.
 - discoloration from a wet subfloor or mold and mildew.
 - discoloration from fasteners (such as nails, staples ...). Use only non-staining galvanized fasteners.
 - discoloration from stain sources on/in subfloor mentioned above.
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After subfloor preparation has been completed, remove all dirt and debris from the subfloor.

Preparation

Concrete Subfloors

Use a latex fortified Portland cement based levelling compound if the surface is uneven, rough or cracked to produce the desired level of smoothness. Concrete floors should be tested for alkalinity. Acceptable pH range is 5 to 9 for the installation of Beauflor cushion vinyl flooring.

Wood Subfloors

Must have a minimum 18" of cross-ventilated space between the bottom of the joist and ground. Exposed earth crawl spaces must be sealed with a polyethylene moisture barrier.

All loose floorboards should be secured with non-staining galvanized fasteners or countersunk screws. Any protruding fasteners must be hammered down flush with the surface. Single floor wood construction and Tongue and Groove subfloors must be covered with ¼" APA approved underlayment plywood. Use ¼" thick underlayment panel for wood strips 3" wide or less. For wood planks wider than 3" face use ½" underlayment panels. Countersink nail heads and fill depressions, joints, cracks, and chipped edges with latex fortified Portland based patching compound. If the subfloor is wood over concrete (sleeper construction) remove wood and proceed per concrete subfloor instructions. Do not install cushion vinyl flooring directly on particle board, chipboard, lauan, composite type underlayments or any wood treated with a preservative.

Quarry or ceramic tiles

Follow the basic requirements above for concrete floors. Any loose or broken tiles should be removed and the floor patched with a latex fortified Portland base levelling compound to fill the joints between the tiles to create a smooth surface. Old quarry tiles were often laid on subfloors without a suitable damp-proof membrane. This should be checked prior to installation of the floor. If there is no integral DPM then a surface DPM must be installed.

Existing smooth flooring

Remove all existing cushioned vinyl, linoleum, cork flooring.

***Warning: if removal of existing resilient floor covering is required, follow all recommended Resilient Floor Covering Institute (RFCI) work practices at www.rfci.com.**



Hard flooring

Existing hard flooring such as PVC Composite tiles (including bitumen based "MARLEY" tiles) may be left in place. All polish must be removed from the tiles with a solution of 2% household ammonia, the floor must then be thoroughly rinsed with clean water. Any damaged or loose fitting tiles must be removed and the floor patched flush to the remaining tiles with a latex fortified Portland base levelling compound. To prevent staining to the new floor, the tiles must then be covered with a MINIMUM 2" thickness of latex fortified Portland base levelling compound.

WARNING: Do not sand any existing flooring material, it may contain asbestos, which can be hazardous to health. (Beauflor residential vinyl floors do not contain asbestos).

For OSB plates

All loose floorboards should be secured with suitable nails or countersunk screws. Any protruding nails must be hammered down flush with the surface. Do not lay the flooring directly on timber treated with wood preservative. After subfloor preparation has been completed, carefully remove all dirt and debris from the subfloor with a vacuum cleaner, a broom or a brush with fine bristles.

Installation

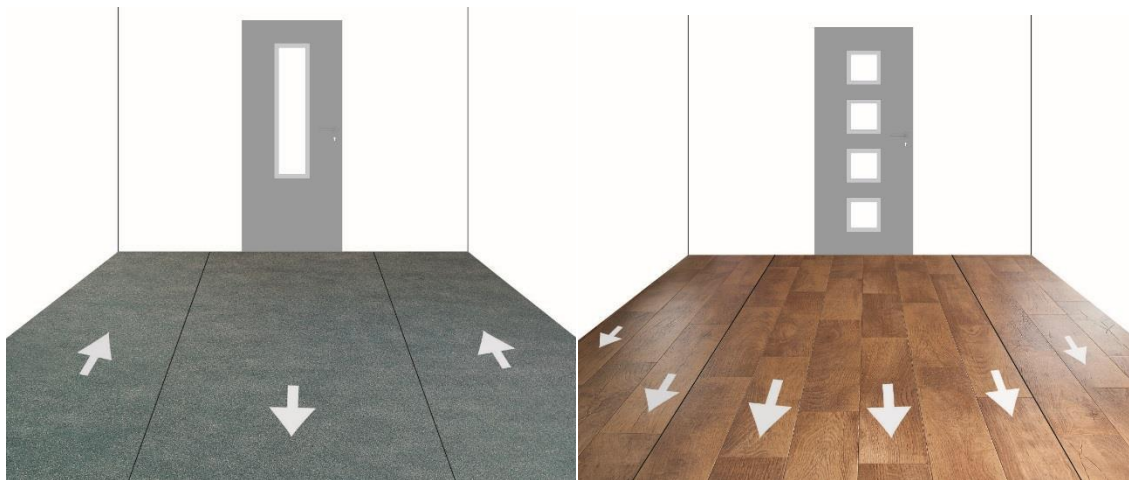
Recommended tools

- A sharp knife with a straight blade for long cuts.
- Soft bristle brush
- Straight edge
- Tape measure
- Beauflor CV Seam Sealer
- Hair-dryer (optional)
- Pencil (no felt tip, wax or staining markers)
- Beauflor 4N1 Adhesive (Clip on trowel is included)
- Damp cloth
- 3 Section 75-100 Roller
- Beauflor Substrate Primer (For Alkaline, Dusty or Porous Substrates)
- Beauflor Moisture Seal 95 (For excessive subfloor moisture mitigation)
- Double sided tape (plasticizer resistant)

Pattern matching

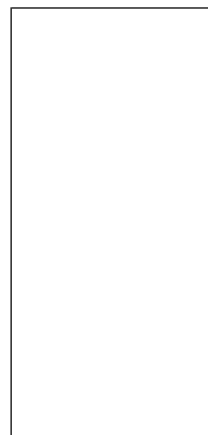
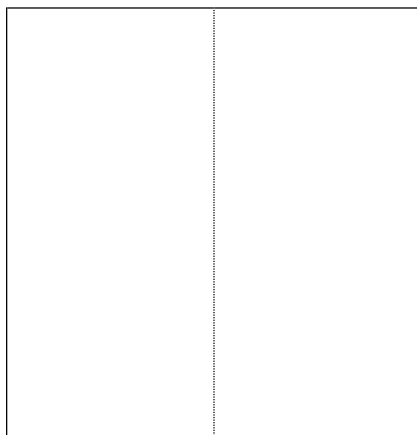
Do not crease or fold the vinyl sheets as this can lead to permanent damage. Do not write on the back of the vinyl sheets with a pen or felt tipped marker. If necessary use a soft graphite pencil. Ensure that all the sheets are installed in the direction they have been printed (this should be the direction in which the rolls have been unrolled).

When cutting to size, take into account the nature of the design and pattern. In the case of plank and tile designs, we recommend that every sheet should be installed in the same direction, for all-over designs, we recommend that every other sheet is rotated through 180°.

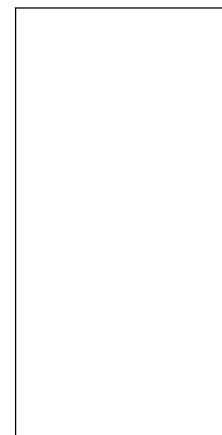


For all-over designs, alternate sheets should be installed in opposite directions.

For plank designs and tiles, sheets should be installed in the same direction.



Cut sheets



If more than one roll of the same color is required, all the rolls must be from the same batch and installed in the same order as they are numbered. Beauflor cannot guarantee a color match between different batches.



LAYING DIRECTION

Plan the direction and order of the sheets before installation, to ensure that if any seams are required they do not coincide with doorways or main traffic areas. In areas with large windows, sheets should run parallel to the incoming light. In long narrow rooms (like corridors) sheets can be installed along the length of the room.

In square rooms, it is best to lay the rolls parallel to the entrance light, while in long and narrow rooms it is better to have them installed lengthwise. When you are installing 6' rolls next to each other it is important that these are all from the same batch.

IMPORTANT: Floors cannot be loose laid if a seam is required. If a seam is required the whole floor must be laid using Beauflor MultiPurpose 4N1 Adhesive.

Fitting your floor

Rough cut the material to size leaving about 3" all round for final trimming in. If more than one piece of flooring is needed, cut the pieces to length but add an amount equal to the pattern match to each piece, plus the 3" trimming allowance.

Line up the cut piece to your selected starting wall. The material is laid with the 3" over-cut running up the walls, ensuring that the pattern runs parallel to the wall.

It is important to cut the floor in gradually. Several small trimming cuts are better than attempting one cut and will result in a better finish. Always hold the knife perpendicular to the floor to keep a straight cut finish.

Internal corners

Make small diagonal cuts across the material's corner very gradually until the material fits neatly into the corner.

External corners

Push the material firmly down into the joint between the floor and wall. Cut down the material, following the corner and trim flat to the floor. It can be helpful to gently warm the floor with a domestic hair dryer to make it more flexible.

Irregular fittings (radiator pipes etc)

Push the material into the joint between the floor and fitting and cut down almost to the floor. A small cross-cut will then stop the material tearing. Gently ease the material down around the fitting by cutting to the floor at all pressure points and cutting flat to the floor.

With the material now lying flat around the fittings and corners, the final cutting along the wall lengths can be carried out. Push the flooring into the joint between the wall and floor with a straight edge and cut off small strips at a time, gradually working the material down to the floor keeping the blade tight against the skirting board and held as near the vertical position as possible.

Avoid trimming in too tightly as this will prevent the material lying flat (as a general rule leave a gap of 3" between the edge of the floor and the skirting board to allow for normal movement, this will avoid any buckling due to room expansion/contraction).

Release any trapped air by sweeping with a soft broom.



Appliance placement areas (fridges/washing machines/cookers) should be fully adhered. This band should be at least 3" deep and run beyond the full width of the appliance, where the floor meets the wall. This minimizes the risk of pulling up the flooring during movement. If heavy appliances are to be regularly moved, placing them on scrap vinyl or on a piece of hardboard should be considered. This will reduce the risk of damage to the flooring.

Seam cutting

Additional items required:

Low-tack masking or clear adhesive tape.

Beauflor 4N1 MultiPurpose adhesive or double-sided adhesive tape suitable for vinyl flooring. Beauflor CV Seam Sealer or Chemical vinyl seam bond (Cold welding fluid Type A).

Follow these steps:

Fit the largest of the rough-cut pieces in accordance with above guidelines.

Lay the next largest rough-cut piece so that it overlaps the first by $\frac{1}{2}$ " - 2", ensuring that the pattern (13' width only): adjacent sheet widths should be reversed to minimize apparent shade variation.

Fit this second piece as described above.

To cut the seam place your steel rule or straight edge so that the guiding edge lies over both edges of the overlapping material. Hold firmly and cut through both thicknesses simultaneously keeping the knife as vertical as possible to the flooring to create a closely butting seam (This will require gradual cutting - do not attempt to accomplish in one stroke.)

Adhering vinyl to subfloor

Generally, installations requiring only one sheet of flooring material, which is less than 215 square feet, do not require full adhesion. Installations over 215 square feet must be fully adhered or if they involve a seam.

Perimeter adhesion

We do not recommend perimeter adhesion of Beauflor Vinyl floor coverings. However double-sided tape (suitable for resilient residential vinyl) can be used in doorways to ensure the vinyl lies flat.

Alternatively the floor can be held in place under a suitable threshold strip.

Full adhesion

Installations requiring full adhesion should be installed by a professional installer. However, as a general guideline : After applying Beauflor Multipurpose 4N1 adhesive in accordance with the pail instructions, allow the adhesive to cure until it reaches its initial bonding strength, before putting the floor covering in place.

Ensure that the sheet is flat, smoothing out bubbles, compressions and tensions. Check that the seams are joined tightly together. Do not try to compress seams that are curling. If the sheets are curling it is an indication that the sheets are not joined together correctly. Always roll the installation in both directions with a 75-100 lb. 3 section roller immediately after flooring is placed and positioned, ensuring complete contact with adhesive.



Additional tools/items needed:

An acrylic flooring adhesive (rubber/neoprene adhesives must not be used)

A fine notched spreader

An old blanket

Single piece installation

After fitting, turn back the flooring to expose about half of the subfloor. Apply Beauflor Multipurpose 4N1 Adhesive to the subfloor in accordance with pail instructions. Replace the flooring material slowly and carefully over the prepared subfloor without trapping air bubbles. Turn back the other half and follow the same procedure. Roll the flooring with a 75-100 lb. 3 section roller to push out any trapped air bubbles.

Two piece installation

Where more than one piece is being fully adhered, complete fitting as described above and pattern-match both pieces, but do not cut the seam. Refer to the section - "Pattern-matching, seam cutting" before you begin

Carefully fold back the flooring and put down a piece of double-sided tape on the floor directly under the middle of the seam. Alternatively apply a 6" band of Beauflor Multipurpose 4N1 adhesive to the floor directly under the seam.

Carefully replace the flooring onto the tape or into the adhesive making sure that the pattern match is correct.

Cover the seam with a low-tack masking or clear adhesive tape (do not use a strong adhesive tape as this may damage the floor surface when you remove it).

Cut through the tape along the seam so it is ready to take a cold-welding vinyl sealant fluid. Allow 24 hours after adhesion of the floor before finishing the joint. (Refer to the section "welding")

Fold back the material from the side walls parallel to the seam, exposing about half the subfloor under each piece.

Spread the Beauflor MultiPurpose 4N1 adhesive in accordance with the pail instructions, replace the material over the prepared subfloor.

Allow the recommended adhesive time and then carefully reposition the material.

Roll the flooring with a 75-100 lb. 3 section roller to push out any trapped air bubbles. Take care not to force adhesive up into the seam.

Welding

Cold welding

Cold welding is used in low-traffic and residential areas, and can be started 24 hours after the installation of vinyl sheet flooring.

Seam welding should only be undertaken after the drying process is complete, this will take a minimum of 24 hours.

Cover the seam between two sheets of vinyl flooring with lightly removable adhesive tape to prevent the sealant fluid from sticking to the surface of the vinyl flooring.

Using a sharp blade (e.g., a utility knife), cut through the tape along the seam

Insert the applicator needle well into the seam until it touches the subfloor. Pull it slowly along the seam



while gently squeezing the tube (follow the instructions of the seam bond manufacturer).

The needle will allow fluid to flow into the seam and, at the same time, a bead of fluid about 1/16" will be left on the tape.

After approximately 10 minutes, the sealant starts drying and the adhesive tape can be removed.

The seam will be dry enough to walk on after 20 minutes and fully cured in 2-3 hours, by which time it will be a watertight, dirt-resistant seam.

With time, as a consequence of cleaning and normal wear, the joint between two sheets of vinyl flooring disappears.

Hot welding

Where there is a risk of water occasionally pooling on the surface of vinyl flooring, hot welding is used. This will prevent the penetration of water and humidity through the seams. It is also recommended for areas with underfloor heating systems.

In order to achieve the best results, it is necessary to wait 48 hours after the installation of the vinyl, to allow the adhesive to completely dry - only then can you begin hot welding. Hot welding ensures a homogeneous joint between two sheets of vinyl flooring, guaranteeing a permanent seal and a longer life span for the floor. Hot seam welding is appropriate for commercial floors which do not have a foam backing and should have a wear layer of 0.40mm or more.

Beauflor suggests that wherever possible the purchaser uses a professional installer in order to achieve the best results.

Recommended tools:

Standard welding gun

Speed weld nozzle – type 1

Speed weld nozzle – type 2

Grooving tool

Trimming sledge

Half-moon trimming knife

Install the floor covering as described in the installation section leaving a gap of max. 1/8" at the seam. Allow the adhesive to dry for a minimum of 48 hours before hot-welding the seams.

When the adhesive has fully cured, cut a groove along the seam using a standard grooving tool. The depth of the groove must be 50-60% of the thickness of the floor covering and must be a maximum of 1/8" wide at the surface.

Once the flooring has been grooved the seam must be cleaned free from dust. This can be done using a soft brush or by blowing the seam clean using a standard hot-welding gun on its lowest available heat setting.

The seam is welded using standard 5/32" welding cable.

It is always best to do a trial weld on a piece of waste flooring in order to set the correct temperature and welding speed. This is because all floor coverings and welding cables have different compositions and react differently under heat. As a guide the weld gun should be set to a temperature between 800°F and 850°F. The speed of welding varies between floor coverings. The speed must be slow enough



to ensure a good weld between the cable and the floor covering but not too slow that the surface of the floor covering is discolored in any way.

In order to reduce the risk of burning the surface we recommend the use of a special speed weld nozzle. This type of nozzle concentrates the heat into the groove and reduces the risk of scorching. Once the seam has been welded the first trim can be done. This must be done using a half-moon knife and a sledge. This allows most of the excess welding cable to be trimmed away while still warm.

The remaining welding cable must be allowed to cool to room temperature before further trimming. Failure to do this will mean that the welding cable may contract as it cools creating a dished surface which is unsightly and can trap dirt.

Once the weld is completely cool the final trimming can be done. This is done using the half-moon knife this time without the sledge. Care must be taken with the angle of attack and the sharpness of the blade to ensure a clean cut without digging into the surface of the product.

Once the weld has been trimmed flush to the surface the job is complete.

After the vinyl flooring has been installed, protect the sealed seams for at least 16 hours after seam sealer application to ensure a proper seam bond.

There is sometimes a difference in gloss between the weld cable and the floor covering. This can be reduced by "glazing" the weld using the heat gun. Again this is best tested on a waste sample before use on the full job to judge the correct temperature and heating time required.

After installation

Once the installation is complete we recommend that you allow at least twenty-four hours drying time before moving heavy objects back into place.

Keep traffic to a minimum during the first 48 hours, to allow the adhesive to harden at consistent temperatures between 65 – 85°F.

Furniture should not be placed on the floor until the adhesive has had adequate time to dry (at least 24 hours/after 72 hours). Always move heavy furniture and appliances with care to avoid gouging or tearing the floor. First, lay strips of plywood or hardboard panels on the floor. Then roll, "walk" or slide these items on the strips. Make sure furniture legs have non-staining floor protectors. Replace small, narrow metal or dome-shaped glides with smooth, flat glides that are in flat contact with the floor. Glides should be equipped with self-adhesive felt pads to avoid scratching the surface of the floor. The pads should be checked periodically for grit and wear and replaced when necessary. Always place mats at outside entrances to prevent dirt, grit and soil from being tracked onto your floor.

Do not use:

Rubber-backed mats or other rubber objects as they may permanently stain your floor.

Heat-producing appliances (refrigerators, hot air emitting devices...) or cigarettes and matches can scorch, burn or discolor your floor.

Narrow heels or spiked athletic shoes can cause permanent damage.

When overexposed to the sun, vinyl flooring may discolor or fade, it should be protected from strong sunlight by drawing curtains or blinds.

Prevent the floor from coming into contact with water for the first 72 hours after installation, or until such time as all seams are welded. Hereafter the adhesive is sufficiently resistant to water so that the bonding strength will not be affected.



During the service life of the floor, the temperature should never fall below 55°F. The performance of the flooring material and adhesives can be adversely affected below this minimum temperature.

Protecting your floor from physical damage

Avoid the following:

Rubber backing on doormats may result in yellow discoloration of the floor immediately beneath.

Choose a natural fiber mat in preference.

Rubber feet on furniture may cause staining. Remove them altogether or replace with coasters or felt pads between them and the floor.

Spirit-based products such as shoe polish, solvents, hair dye and permanent marker pens. Wipe up spots and marks as quickly as possible. Also applies to turmeric, mustard and strongly colored foodstuffs.

Corrosive substances such as acid and alkaline solutions can damage the surface of the floor, clean up any spills quickly and carefully avoiding direct with the substance. Wear protective clothing (gloves etc. when doing so).

Bitumen/tar from freshly resurfaced or melted roads and pathways. Some inexpensive rubber shoe (and slipper) soles can also cause stains.

The above list is indicative of materials likely to cause damage but is not to be considered restrictive.