

## **HARLEQUIN CASCADE PERMANENT INSTALLATION INSTRUCTIONS**

Harlequin endeavours to ensure every roll of flooring is sent to you in pristine condition, however, mistakes in orders or coloration differences may occur. Please inspect your entire order BEFORE you cut or use any flooring and refer to the Harlequin return policy.

### **HARLEQUIN CASCADE**

Harlequin Cascade is a contract quality sheet flooring. It is a composite of plasticised PVC (polyvinyl chloride) sheets and incorporates a reinforcing mineral fibre interlayer for strength and dimensional stability. Supplied in rolls, it is suitable for loose-lay or permanent installation. The product is comprised of PVC resins, plasticisers, pigments and a mineral fibre interlayer.

### **PREPARING FOR PERMANENT INSTALLATION**

Prior to installation, unroll the floor and allow to acclimatise for at least 48 hours at a consistent temperature between 18° C and 27° C.

For porous or over-absorbent subfloors it is advisable to apply an undercoat, bonding agent or a suitable leveling compound that does not contain gypsum but has sufficient resistance to point loading such as F Ball Stopgap Pro 1200.

Anhydrite and plaster coatings should be treated with primer.  
The leveling compound should be applied at least 3mm thick.

### **SUBFLOOR HEATING**

Any underfloor heating should be switched off at least 48 hours prior to installation and remain off for 48 hours after installation.

The relative humidity of the subfloor should not exceed 75%.

### **DETERMINING THE MOISTURE CONTENT OF THE SUBFLOOR**

The moisture content of the subfloor should be determined with a CM-meter or calcium chloride test for massive subfloors and with a timber moisture measuring device for timber subfloors (see table on the next page for the maximum permissible moisture content).

In the case of a massive subfloor, the moisture testing should be carried out at various depths and should not exceed the maximum permissible moisture content.

**MAXIMUM PERMISSIBLE  
MOISTURE CONTENT**

Cement screed	2.5%
In case of ceiling or radiant heating	1.8%
Cement coatings containing pumice	3.5%
Cement bonded cold bitumen emulsions	2.8%
Anhydrite top coatings less than	0.8%
Anhydrate absorbent coatings	.05%
Plaster coatings less than	1.0%
Magnesite top coatings	6.0% - 8.0%
Poured asphalt	none
Timber subfloor	8.0% - 12.0%

The above values are based on experience, and must be understood as general indications only. Therefore, no liability can be accepted. The conditions are different for all circumstances and should be precisely investigated in advance (when in doubt, do a small test run).

**ROOM TEMPERATURE**

The room temperature for installing Harlequin floors should be at a consistent temperature between 18° C and 27° C 48 hours prior to, during and 48 hours after installation.

**PRE-INSTALLATION**

Before installing, the individual sheets should be checked in good light for uniformity of colour. In the unlikely event of pronounced colour differences or other irregularities, contact Harlequin before cutting the floor.

All rolls must be rolled out in the same direction with no rolls reverse laid.

When cutting rolls of Harlequin flooring, be sure to measure the entire length of the roll. When cutting sheets of the floor, add an amount 1% longer than required. Harlequin will not be responsible for discrepancies once the floor has been cut. An exact fitting of the sheets should only be done approximately 24 hours later.

## **SUBFLOORS**

### **Concrete Surfaces**

It is essential to incorporate a moisture barrier beneath newly-constructed concrete slabs. New concrete subfloors must be allowed to dry at a rate of 1mm per day. Concrete or the finished screed must be smooth, level, dry, clean and fully cured (at least 28 days) before installation. It must be free of excessive alkaline salts, and unevenness should be remedied with a latex-based underlayment according to manufacturer's instructions. Test all slabs with an industry-approved moisture meter before proceeding with the installation of the floor.

### **Wood Subfloors**

In the case of wood subfloors, an appropriately conditioned layer of flooring grade plywood should first be installed. The edges of the plywood should not coincide directly with the tongued and grooved joints. A sufficiently large wall clearance should be maintained. Hardboard is not a suitable substrate for Harlequin floors.

All plywood must be firmly fixed to the joists and nail heads set below the surface. Bad cracks and depressions should be filled with a latex-based leveling compound which must be laid in accordance with the manufacturer's instructions. A nominal 9.5mm APA flooring grade underlayment will then ensure a first class surface and will also counteract any possible movement of the floor. Sheets of plywood should be mechanically attached at 100mm centres and primed.

## **INSTALLATION INSTRUCTIONS**

1. Unroll the sheet material and allow it to relax at least 48 hours before cutting and fitting.
2. When cutting rolls of Harlequin flooring, be sure to measure the entire length of the roll. When cutting sheets of the floor, add an amount 1% longer than required. Harlequin will not be responsible for discrepancies once the floor has been cut.
3. Cut and fit material by using underscribing.
4. Keep knives sharp and all installation tools in good working condition.
5. After the sheets have been cut to fit and are placed in their final position, turn half the length of the first sheet to be installed towards the center of the room. Spread the recommended adhesive over the exposed substrate and allow to set until it becomes slightly tacky. Next, place that half of the vinyl floor into the adhesive while using both hands to gently roll the floor into the adhesive. Do not drop the floor into the adhesive as air could become entrapped.
6. Next, turn the uncemented half of the first sheet over and then spread the recommended adhesive over the entire area.
7. Check carefully for adhesive transfer. In addition, remove excess adhesive where necessary.
8. Proceed with the installation as outlined above with each sheet until all sheets have been laid.
9. After all Harlequin sheeting has been installed, the seams should be either welded by liquid seam sealer or heat welded.

## **HOT WELDING**

1. It is sometimes possible with Harlequin floors to butt together adjacent sheets to form seams which are good enough to weld. If not (and always in the case of cross joins) "double cutting" is necessary.
2. Overlap the sheets by about 12mm and cut through both sheets using a straight edge and sharp blade. This forms the hairline joint which is suitable for heat welding or cold solvent welding. When Harlequin flooring is permanently laid we always recommend that the seams are welded.
3. Before welding allow at least 24 hours for the adhesive to set. Then using a grooving tool form a U-shaped groove about two thirds the depth of the wear coat. Avoid grooving into the foam backing or an inadequate weld will be formed. A manual or automatic PVC flooring hot air gun is used to feed the matching or contrasting color Harlequin 4mm diameter welding rod.
4. Heat from the hot air nozzle can cause a slight glossy disfigurement to the special surface of Harlequin floors.
5. Wait until the weld has cooled to room temperature, then remove the excess weld bead using a trimming spatula. If the bead is trimmed when it is hot, the weld will cool and shrink below the floor surface.

## **COLD WELDING**

This is a procedure of injecting a PVC solvent into the hairline joins of the flooring. The solvent dissolves and fuses the adjacent sheets to form an impervious joint. Grooving is not carried out. A point to note is that excessive application will result in solvent fluid running onto the surface of the Harlequin flooring. Damage from this can be prevented by first applying 25mm paper masking tape along the seams, then carefully slitting along the seam with a sharp blade. Remove the masking tape when the weld has set.

### **AN IMPORTANT NOTE ABOUT ADHESIVES**

A good quality adhesive (either an acrylic dispersion type or, having regard to regulations, a solvent-based synthetic rubber/resin contact adhesive) must be used and we recommend the use of F Ball Styrobond F44. **Whereas we unreservedly recommend the use of these adhesives, we are willing to look at those of other manufacturers. We cannot accept any liability for the use of adhesives which do not have our prior approval.** Use all adhesives strictly in accordance with the manufacturer's instructions. If the adhesive fails, it is the responsibility of the adhesive manufacturer.

**If you have any questions regarding the installation or maintenance of your Harlequin floor, please contact our customer services team on +44 (0)1892 514 888**