

# Building Stage Floors – Refurbishment, Rebuild, and New Construction

Backed by an engineering team and independent research, Harlequin Floors brings more than 40 years' experience specializing in stages and floors for the performing arts. Harlequin works on major stage refurbishments from installing a new top surface to constructing a complete new stage.

Stage floors are integral to performance spaces. Venue owners and theater consultants are demanding more than a safe and versatile performance surface. Integration with stage engineering, architectural integrity, and even contributing to the acoustic environment of the space can be factors that set high specification standards.

Stages not only need to be load-bearing for performers, scenery, props and trucks, they need to be hard-wearing – throughout move in, breakdown, and rigging - show after show. The floor surface should provide a safe working environment not just for performers but also for technical teams.

Harlequin combines traditional floor construction skills using natural materials and advances in engineered floor products and plastics components to meet the most demanding stage specifications. Whether working with an architect's design or a venue's in-house technical crew, Harlequin's skilled teams are experienced in stage and floor construction and deliver the finished stage on time and on budget.



Kennesaw State University stage floor project featuring Harlequin WoodSpring and Harlequin Cascade.

## Outdoor Spaces

Harlequin offers options for performing safely in the great outdoors. Create a space that is consistent with what performers are used to inside with Harlequin's sprung panel systems and range of vinyl performance surfaces. Contact an Account Executive to discuss creating the perfect stage for your space.



Guest artists from The Royal Ballet at Athelhampton House for Ardenrun

**American Harlequin Corporation**  
1531 Glen Avenue  
Moorestown, NJ 08057

(800) 642 6440  
contact@harlequinfloors.com  
harlequinfloors.com

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HONG KONG  
TOKYO



## Sprung Performance Floors Permanent and Portable



Photo credit: Sam Houston State University by Jared Doster



Photo credit: Ema Peter



Photo credit: Boston Ballet by G. Schiavone



Jacob's Pillow Dance Festival



Photo credit: Birmingham Hippodrome



Photo credit: Walnut Hill School for the Arts

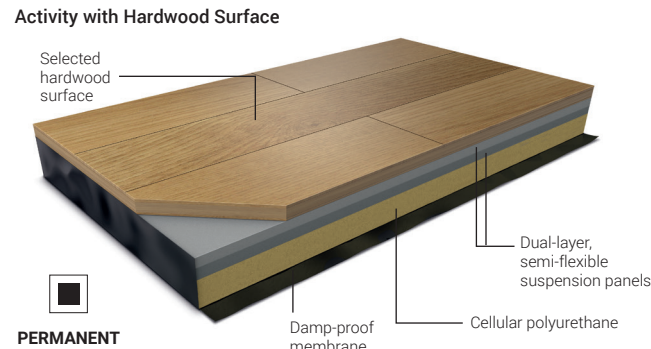
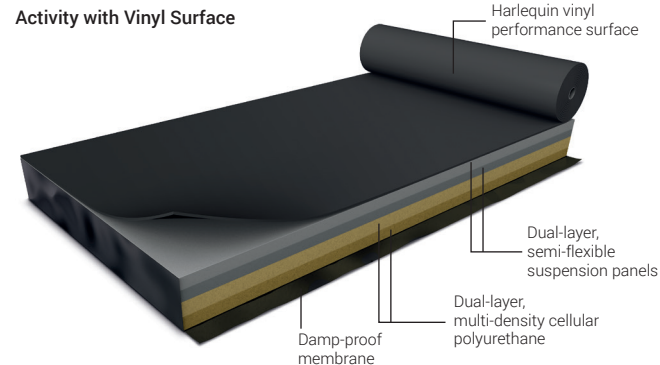
## Harlequin Activity®

**Harlequin Activity** is a permanently installed sprung floor system, based on the well-established 'triple-sandwich' construction originated by Harlequin over 40 years ago. It is a fully floating system with no fixings to the sub-floor and can be laid on any reasonably smooth and flat surface without prior preparation.

**Harlequin Activity** is shock-damped to avoid a 'trampoline' effect and provides area and point elasticity to offer identical characteristics across the whole floor. An 'industry standard' choice, when correctly reinforced, that can withstand heavy loading including retractable seating.

**Harlequin Activity** can be installed with a Harlequin vinyl performance surface for all types of dance. A hardwood surface is available for specifiers who need a surface for multi-purpose use, including traffic by the general public, full stage entertainment, ballroom dance or when required to match existing decor.

**Harlequin Activity** must be installed through Harlequin's contracts division and each custom installation is backed by a Harlequin guarantee.



PERMANENT

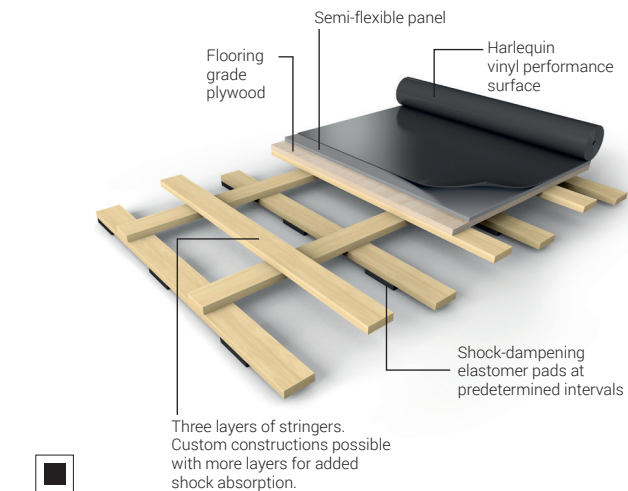
## Harlequin WoodSpring®

**Harlequin WoodSpring** is a permanently installed sprung floor system that is a modern interpretation of the traditional 'basket weave', which originated in the 19th century. WoodSpring blends a traditional construction approach with the technology of today's materials. The "spring" in basket weave construction comes from the natural flexing and recovery of the triple layer of battens, which is enhanced by shock-absorbent elastomer pads.

**Harlequin WoodSpring** is comprised of a triple layer of wooden bearers laid at right angles to one another onto shock-absorbent elastomer pads attached to the underside of the bottom layer. The bearers are then covered with semi-flexible panels and covered with either a Harlequin vinyl performance surface or solid hardwood. The selection of lumber, batten and pad spacing, insulation and installation are proprietary to Harlequin Floors and critical to long-term performance.

**Harlequin WoodSpring** can be used as a subfloor for all types of dance, including percussive and is a top choice of professional dance companies.

**Harlequin WoodSpring** must be installed through Harlequin's contracts division and each custom installation is backed by a Harlequin guarantee.



PERMANENT

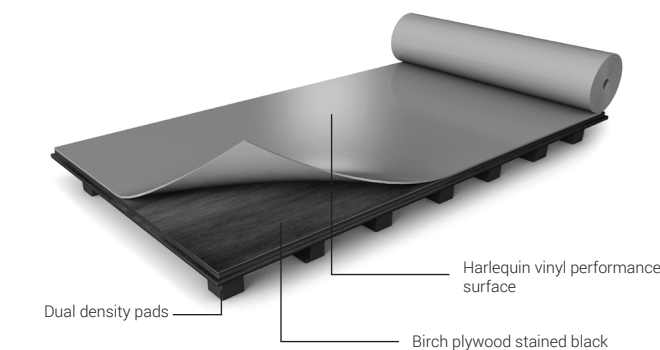
## Harlequin Flexity™

**Harlequin Flexity** is a cost-effective sprung floor panel system, designed for permanent or semi-permanent installation. Panels are laid in a brickwork fashion onto the sub-floor, so that cross joints do not coincide. The panels join together by a special tongue and groove, which are glued together for permanent installation or fixed using woodscrews at predetermined points along the tongue and groove for a semi-permanent solution.

**Harlequin Flexity** can be installed by anyone with carpentry skills and full instructions are provided. It's a cost-effective choice, helping to reduce the injury risks associated with dancing or performing on a hard, unsprung floor.

**Harlequin Flexity** is finished by choosing an appropriate Harlequin vinyl or engineered hardwood performance floor surface.

Floor Panel Size 48"x48"



PERMANENT



SEMI-PERMANENT

## Harlequin Liberty LatchLoc™

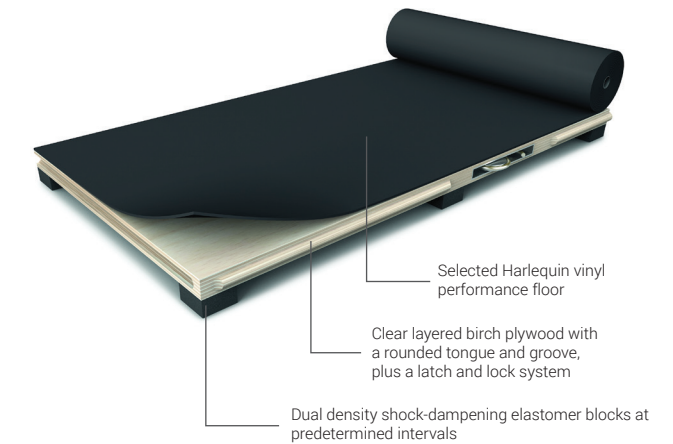
**Harlequin Liberty LatchLoc** is a modular, sprung floor panel system manufactured from engineered boards with dual density elastomer blocks on the underside to give uniform and consistent shock damping. The panels are laid in a brickwork fashion onto the subfloor, so that cross joints do not coincide. They are linked to each other by a hardwood dowel, which is secured into place using our 'one turn of the key' latch and lock mechanism.

**Harlequin Liberty LatchLoc** sprung floor panels are available for portable (touring) installations. The panels have tempered hardboard attached to the underside for ease of sliding the panels into position, to protect the elastomer blocks and to allow the panels to be loaded more readily on storage carts.

**Harlequin Liberty LatchLoc** sprung floor panels are quick and easy to install. The panels and accompanying portable Harlequin vinyl floor surface can also be stored in carts, providing an easy and safe way for crews to move them while on tour or around a venue.

**Harlequin Liberty LatchLoc** is finished by choosing an appropriate Harlequin vinyl performance floor surface. Solid kerbs and ramps are available for stage use or where the sprung floor does not extend to the walls of the studio.

Full Size Panel 96"x48"  
Half Size Panel 48"x48"



PORTABLE

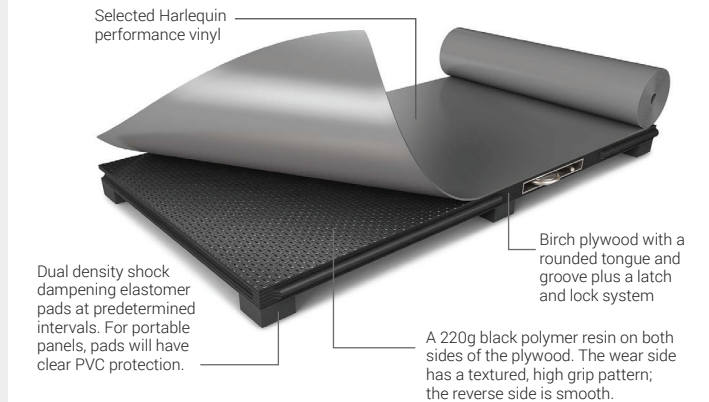
## Harlequin Liberty HD™

**Harlequin Liberty HD™** is a further development of our renowned Liberty panel system, designed with enhanced durability in mind, for more challenging environments. Installed permanently or as a portable floor, panels are laid in a brickwork fashion onto the sub-floor so that cross joints do not coincide. The panels join together by a rounded tongue and groove and are secured using our 'one turn of the key' latch and lock mechanism.

**Harlequin Liberty HD** panels are overlaid with a black polymer resin on both sides and have a textured, high grip pattern on the top surface, which is water-resistant, anti-slip, and weatherproof.

**Harlequin Liberty HD** panels can be finished by choosing an appropriate Harlequin vinyl performance floor from our range. For permanent and semi-permanent use, installation can be carried out either by the customer themselves or by our highly-skilled technical team.

Full Size Panel 96"x48"  
Half Size Panel 48"x48"



PORTABLE



PERMANENT



SEMI-PERMANENT

\*Harlequin Liberty Classic available by special order only.

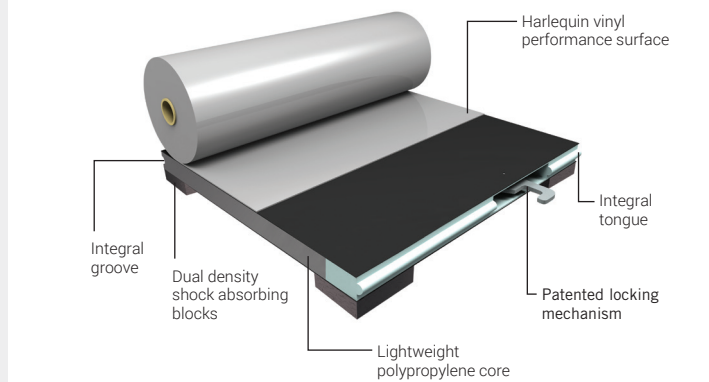
## Harlequin AeroDeck™

**Harlequin AeroDeck** is an ultra lightweight, waterproof, modular sprung floor panel system manufactured from engineered panels with elastomer blocks that are located at regular intervals on the underside. Blocks provide added shock absorption and uniform suspension to eliminate hard spots. Panels are laid in a brickwork fashion onto the subfloor, so that cross joints do not coincide. They are linked to each other by a riuussed tongue and groove pivot joint and secured by a unique locking system, which remove the need to fix the panels mechanically to the sub-floor.

**Harlequin AeroDeck** is quick and simple to install. The portable panels have flexibility for reconfiguration and are light to carry due to an advanced internal structure inspired by aerospace technology. The core construction of the panel is unaffected by moisture therefore the system is suitable for use in outdoor productions.

**Harlequin AeroDeck** is finished by choosing an appropriate Harlequin vinyl performance floor surface.

Full Size Panel 96"x48"  
Half Size Panel 48"x48"



PORTABLE

**Harlequin Sprung Performance Floors** are finished with an appropriate Harlequin Vinyl Performance Surface or Hardwood Surface. View our range of surfaces at [harlequinfloors.com](http://harlequinfloors.com).