



HARLEQUIN

PORTABLE AND PERMANENT
SPRUNG FLOOR SYSTEMS

THE WORLD DANCES ON HARLEQUIN FLOORS®



Environmental policy

Environmental responsibility has been a core value at Harlequin Floors for many decades. Environmentally compatible products and state-of-the-art processes ensure that each production stage minimises our environmental impact. We engage in responsible product sourcing that combines our customers' preference for quality with care for the environment; carefully selecting suppliers who reflect our environmental and social concerns. We constantly seek to improve the environmental performance of our processes from manufacture through installation and ongoing maintenance. Raw materials and energy are used efficiently, waste is recycled wherever possible and emissions are kept to an absolute minimum.

Timber certification and material sourcing

We only use FSC certified sources and documentation to support this is available on request.

PVC lifecycle and policy

PVC floor coverings can be fully recycled and are therefore often described as a sustainable product. Harlequin Floors recycles nearly 100% of its post manufacturing waste. We also buy in further recycled PVC material, thereby actively reducing the amount of used PVC sent to landfill. As part of our commitment to Product Stewardship, we will also recycle any Harlequin Floors vinyl product returned to our factories in Europe for recycling at the end of its life, thus minimising our and our customers' carbon footprints.

Harlequin quality

All **Harlequin** floors are guaranteed unconditionally against defects in manufacture, provided that claims are made within six months of the date of delivery or of installation.

The company only accepts liability for replacing a product deemed to be defective. Harlequin will not accept any liability whatsoever for accidental damage or deterioration linked to inappropriate or extreme use.

Harlequin dance vinyl and sprung floors are guaranteed for five years from the date of delivery or for ten years from the date of installation under normal use and provided that maintenance instructions have been followed.

Harlequin Showfloor™ and Hi-Shine™ floors are guaranteed for two years only from the date of delivery.





HARLEQUIN

Dear Friends of Harlequin,

Thank you for your interest in Harlequin sprung floor systems, which for over 40 years have been the choice of the world's artistic and technical directors and dance professionals.

Harlequin combines top quality products with unbeatable service - whether your requirement is for a dance company, conservatoire, local school, opera house, theatre, private dance school, television Studio, exhibition, fashion show or rock concert.

In this brochure you will find technical and practical information to help you select which of our three sprung floor systems, Harlequin Activity, Harlequin Liberty, Harlequin Flexity, is best suited to your requirements.

In addition to this brochure on Portable and Permanent Sprung Floors, we also have a separate brochure on Harlequin Vinyl Floors for Dance and Entertainment.

You can contact our business advisers on the free phone number 00 800 90 69 1000. They will be happy to answer all your questions.

Chantal Lagniau
General Manager, Harlequin Europe



Please also see our separate brochure on Harlequin vinyl floors.

I. Harlequin sprung floors Recommended vinyl floors for dance surface

	ALLEGRO™	CASCADE™	DUO™	DUO PRO™	FIESTA™	FREESTYLE™	HI-SHINE™	MARINE™	STANDFAST™	SHOWFLOOR™	STUDIO™	SOLID HARDWOOD	ENGINEERED BOARD
LIBERTY™ Permanent Version		✓		✓	✓	✓		✓	✓		✓		
LIBERTY™ Portable Version		✓	✓			✓	✓			✓	✓		
ACTIVITY™		✓			✓	✓		✓	✓		✓	✓	✓
FLEXITY™		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓

✓ compatible

II. Harlequin vinyl floors Recommended for use by dance style

	Aérobic / Zumba	Classical	Ballroom dancing / Salsa	Concerts	Contemporary	Exhibitions	Hip-Hop / Jazz Street dance	Multi-purpose	Percussive dance (Flamenco, Tap)	Théâtre / Opéra	TV Studios	Fashion Shows
DUO™	✓✓	✓✓	✓	✓✓✓	✓✓	✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓
DUO PRO™	✓✓	✓✓	✓	✓✓✓	✓✓	✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓
STUDIO™	✓✓✓	✓✓✓			✓✓✓		✓✓					
CASCADE™	✓✓	✓✓✓	✓	✓✓✓	✓✓	✓✓	✓	✓✓	✓	✓✓✓	✓	✓
STANDFAST™	✓✓✓	✓✓	✓✓		✓✓✓		✓✓✓	✓✓✓	✓✓	✓✓✓		
ALLEGRO™	✓✓✓	✓✓			✓✓✓		✓✓					
FREESTYLE™	✓✓✓				✓✓✓		✓✓✓					
FIESTA™	✓✓✓		✓✓✓		✓		✓✓	✓	✓✓✓	✓✓✓		
HI-SHINE™	✓		✓	✓✓✓	✓✓	✓✓✓	✓		✓	✓✓✓	✓✓✓	✓✓✓
SHOWFLOOR™				✓✓✓		✓✓✓		✓✓		✓✓✓	✓✓✓	✓✓✓
MARINE™	✓	✓	✓✓	✓	✓		✓	✓✓	✓✓✓	✓✓✓		

✓ compatible ✓✓ appropriate ✓✓✓ ideal

For more information please call us on freephone 00 800 90 69 1000.
info@harlequinfloors.com





Harlequin Liberty™

Sprung panel floor system for portable and temporary use, or for permanent installation

SPECIFICATION GUIDE

Minimum floor thickness

(before inclusion of chosen finish)

37 mm

Minimum floor weight

(before inclusion of chosen finish)

12,5 kg/m²

Maximum load resistance

Battens can be installed under the floor to obtain a load resistance of 1500 kg/m² when using retractable bleacher seating..

670 kg/m²

Maximum point load

In case of heavy rolling loads, use a 10mm plywood track.

366 kg/pressure point

Fire rating

Bfl-s1

Energy return

20,7%

Testing standards

DIN 18032-2

Shock absorption

(DIN standard minimum requirement is 53%)

67%

Vertical deformation

(DIN standard minimum requirement is 2.3mm)

4,1 mm

Surface deformation

(DIN standard maximum requirement is 15%)

12,8%

Resistance to rolling loads

(DIN standard minimum requirement is 1500N)

> 1500N

Installation time

120m²/hour with 2 flooring layers (for portable version)

120m²/day with 2 flooring layers (for permanent version)

Harlequin Liberty™ sprung floors are available in two versions: permanent and portable. They help to prevent injuries and offer dancers a safe and secure surface on which to work.ité.

Harlequin Liberty™ permanent panels offer the unique benefit of quick installation,yet are easy to dismantle and re-install in another venue, or to a different configuration.

Harlequin Liberty™ portable panels are suitable for both touring dance companies and temporary use in entertainment venues where the stage floors are too harsh for dance and require a sprung floor solution..

The pivot joints and elastomer blocks ensure uniform performance across the entire floor surface, giving dancers the same 'feel' and energy return anywhere on the floor.

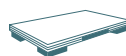
Available in two versions, as portable or permanent panels, **Harlequin Liberty™** offers dancers the same level of comfort both in the practice studio and on stage.



PERMANENT



PORTABLE



1 x 1 m and 2 x 1 m

Selected Harlequin vinyl performance floor

Clear layered birch plywood with a rounded tongue and groove, plus a latch and lock system

Dual density shock dampening elastomer blocks at predetermined intervals



Accessories:

Edge trims

Ramps

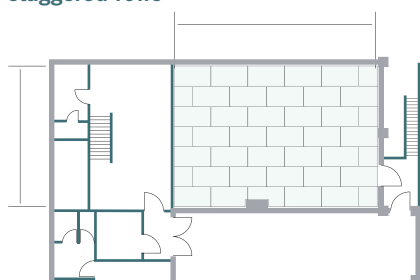




Harlequin Liberty™

Design and construction

Configuration of the panels in staggered rows



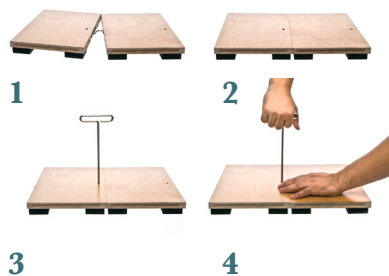
*Example of Harlequin Liberty configuration
(can be adapted to suit requirements).*

- Panels are made out of birch multi-ply.
- Each panel is fitted with dual density shock-damping elastomer blocks to ensure uniform, consistent shock absorption. Tested using the Shore Durometer Test, the dual density enables the blocks to compress gradually, providing exactly the same degree of shock absorption and energy return to one or more dancers on the same panel.
- The panels are laid in brickwork fashion (i.e. staggered rows) so that the joints don't coincide, and are linked to each other by tongue-and-groove joints.
- The tongues stop 20mm from the corners, making the floor more resistant to heavy loads.
- The edges of the panels are supported by elastomer blocks.

Assembly and fixation



Connect and secure your Harlequin Liberty panels with just one turn of a key.



1. The tongue-and-groove panels fit together easily
2. The latch system locks the panels securely together
3. Turning the locking key engages the latch.
4. One turn of the locking key is all it takes

NEW SYSTEM:

« Only one key turn »

Easy-to-fit





Harlequin Liberty™

Transport cart

SPECIFICATION GUIDE

Unladen weight
119 kg

Dimensions
2,07 m (L) – 1,28 m (l) – 1,25 m (H)

Capacity
22 full-size or 44 half-size panels

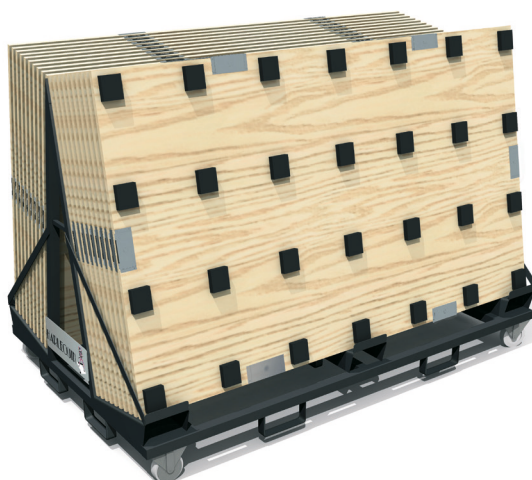
Wheels
4 swivel-braked wheels

Wheel diameter
150 mm

Harlequin Liberty sprung floor panel transport carts are specially designed to fully protect the panels, edge trims and ramps during transport on tour.

Made out of tough, black, scratch-resistant, powder-coated steel, each cart is mounted on four swivel wheels with non-marking rims and fitted with brakes, making it easy to manoeuvre.

Each cart can transport up to 22 full-size panels which can be loaded and unloaded extremely quickly. The sides of the carts have slots for fork-lift trucks, making them easy to handle.





Harlequin Activity™

*A fully floating sprung floor
for permanent installation*

SPECIFICATION GUIDE

Minimum floor thickness

For vinyl surface: 46 mm
(without vinyl surface)

For hardwood surface: 51 mm
(with hardwood surface)

Minimum floor weight

For vinyl surface: 17,9 kg/m²
(without vinyl surface)

For hardwood surface: 19 kg/m²
(with hardwood surface)

Maximum load resistance

Battens can be installed under the floor to obtain a load resistance of 1500 kg/m² when using retractable bleacher seating 549 kg/m²

Maximum point load

In case of heavy rolling loads, use a 10mm plywood track.

366 kg/pressure point

Testing standards

DIN 18032-2

Shock absorption

(DIN standard minimum requirement is 53%)
59,6%

Vertical deformation

(DIN standard minimum requirement is 2.3mm)
3,8 mm

Surface deformation

(DIN standard maximum requirement is 15%)
7,2%

Resistance to rolling loads

(DIN standard minimum requirement is 1500N)
> 1500N

Harlequin Activity™ is a permanently installed sprung floor system based on the now well-established 'triple sandwich' construction originated by Harlequin over 30 years ago. The fully floating construction is not fixed to the floor or walls, thus minimising noise transmission.

Harlequin Activity™ is shock-damped to avoid a 'trampoline' effect and provides area and point elasticity to offer identical characteristics across the whole floor. It is an 'industry standard' choice with many hundreds of installations worldwide, effectively reducing injuries to both teachers and performers..

Harlequin Activity™ has been tested for noise reduction with a variety of Harlequin dance surfaces in accordance with standard BS EN ISO 140-8:1998. The results showed that Harlequin Activity achieves significant impact sound reduction.

You can chose the **Harlequin Activity™** sprung floors with different surface options : Solid hardwood (beech, oak or maple) or with a Harlequin vinyl floor.



PERMANENT

Harlequin vinyl dance floor

*Dual layer semi-flexible
suspension panels*

Cellular polyurethane

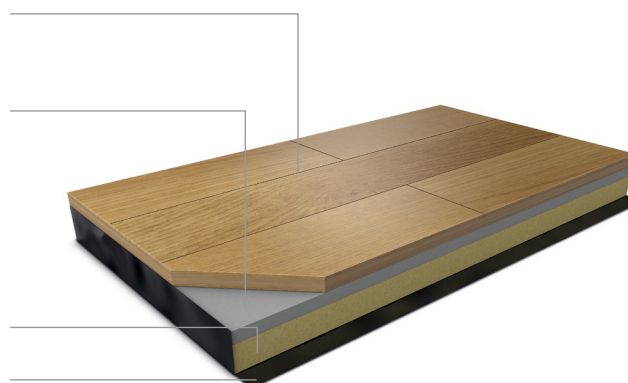
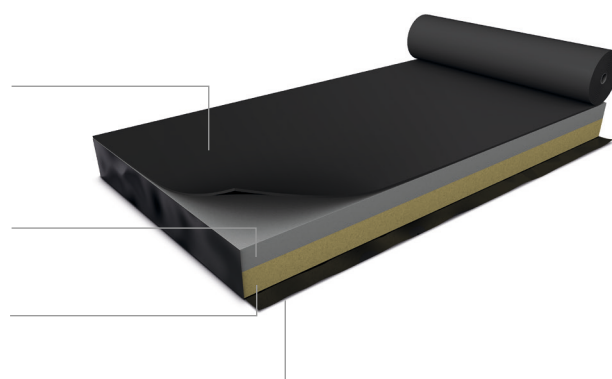
Damp-proof membrane

*Solid hardwood OR engineered
board with a hardwood wear
layer - both are available in
beech, oak or maple*

*Single layer semi-flexible
suspension panel*

Cellular polyurethane (25mm)

Damp-proof membrane





Harlequin Activity™

Design and construction

The following layers are applied to a smooth, dry concrete sub-floor :

- Polymer damp-proof membrane.
- Cellular polyurethane 25mm thick and tested for resilience by Harlequin.
- Layer of semi-flexible panels 12mm thick.
- Second layer of semi-flexible panels 9mm thick installed at right angles and in staggered rows.
- Polyethylene film enveloping the entire structure on panels edges.
- Performance surface 2 or 3mm thick and weighing between 2.3 and 2.6kg/m², adhered and welded to the surface .
- Maximum overall height is 49mm, including the performance surface.

Installing a Harlequin Activity floor



2



3



4



1. Cellular polyurethane
2. First layer of semi-flexible panels
3. Second layer of semi-flexible panels laid at right angles to the first layer in staggered rows
4. Harlequin performance surface



Harlequin Flexity™

*Sprung floor for permanent installation
to lay by yourself*

SPECIFICATION GUIDE

Weight of the sprung floor

37 mm (before inclusion of chosen finish)

Weight of the sprung floor

10 kg/m² (without vinyl floor)

Average shock absorption

(DIN standard minimum requirement is 53%)

59,1%

Maximum load resistance

600 kg/m²

Maximum point load

366 kg/pressure point

Fire rating

vinyl floor finishing : Bfl-s1

engineered board finishing : Dfl-S1

In accordance with standard

BS EN 14904:2006

Plywood density

between 650 and 750 kg/m³

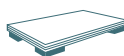
The **Harlequin Flexity™** sprung dance floor is a cost-effective, self-install sprung floor panel system, designed for permanent installation. Panels are laid in a brickwork fashion onto the sub-floor, so that cross joins do not coincide. The panels join together by a special tongue and groove, which are glued during installation. A semi-permanent version is available, to special order, where the panels are held together with plastic straps.

Harlequin Flexity™ can be installed by anyone with basic DIY 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 performance floor from our range.



PERMANENT

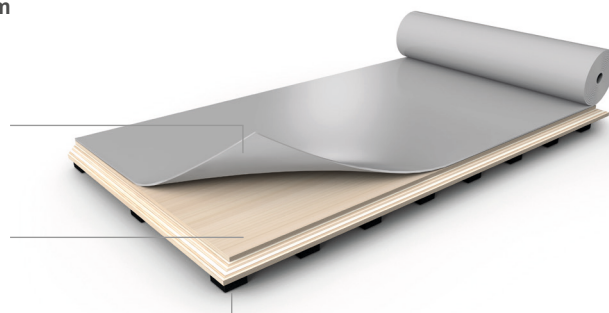


1.2 m x 2.4 m

*Harlequin vinyl
performance floor*

*Spruce plywood with special
tongue and groove system*

*Double density shock
damping elastomer blocks*



HARLEQUIN

The world dances on Harlequin floors®



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