

Spectral™ 240 3D screens are considered by leading cinema exhibitors and special venue operators worldwide to be the optimum 3D projection surfaces. Silver aluminium flake based coating applied to a unique base material provides high gain characteristics, very low depolarisation level (extinction ratio) and excellent colour temperature. The surface type also supports conventional 2D pictures. Noted for invisible seams under normal projection conditions.

	Spectral 240	Spectral 240 MP
Application	Cinema (particularly suitable for polarised 3D systems), Screening Room, Roller Screen and 4D Theme Rides	
View Distance	Minimum of 5mtr (15') recommended on perforated surfaces	Minimum of 1.5m (5')
Maximum Size	USA manufacture 23.77 x 12.19m (78' x 40') Europe manufacture 33m x 11m (108' 3" x 36' 1")	
Perforation Size	Ø1.2mm (0.047")	Ø0.50mm (0.020")
Perforation Density	4.5%	1.7%
Weight	0.50kg/m ² (0.10lb/ft ²)	
Eyelet Spacing	150mm (6") nominal (US) / 200mm (8") France	
Typical Packing	Rolled in a cardboard tube; packed in a long wooden box when height is over 7m (23').	
Fire Certification	UK BS 5867 Part 2, USA NFPA 701, France M2, Germany B1, Japan BT-08-050 & Korea (regulation requires certification from importing company) and Australia.	
Surface Edging Options	<ul style="list-style-type: none"> • Web and eye (grommet). Triple fold web integral with surface • Cloth web and fixings (snaps) for press stud frames • Cut square (unfinished edge) 	<ul style="list-style-type: none"> • Preformed pipe pocket any size on any side • Straight sides or shaped to special order

Despatch/Storage

Screens should normally be transported and stored at temperatures between 5°C and 30°C (40°F and 85°F), with relative humidity less than 80%. If screens are very cold (e.g. following air transport) then they must be allowed to warm up before unpacking, otherwise cold cracking may occur. Screens should be installed within a maximum of 2 months of shipping. Packages should be handled with care to avoid damage. Spectral™ 240 cannot be folded for transit or storage; roll packing must always be used.

Installation

The following principles should be followed when installing Harkness Perlux screen surfaces:

- The auditorium should be clean with no building works taking place.
- Installation should be at ambient temperature (20/24°C-68/75°F).
- Care should be taken to avoid the screen coming into contact with sharp objects during installation.
- Excessive loads should not be placed on any specific point of the screen.
- Use of cotton gloves is recommended.
- The viewing surface should not be touched (the rear of the screen is identified by the product label).
- Creasing should be minimised during installation.

There are two principal methods to install the screen:

- Flying the screen by attaching several tie lines to the top of the screen, passing these over the top of the frame and using them to pull the screen into place.
- Unrolling the screen vertically across the front of the frame.

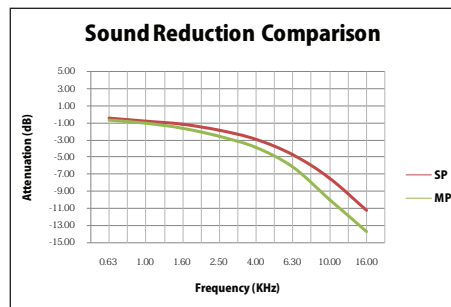
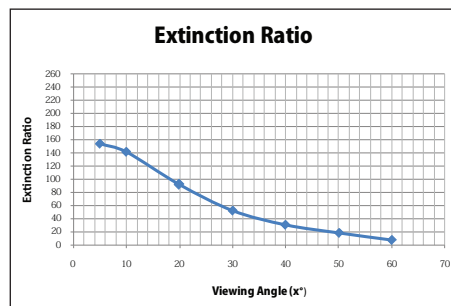
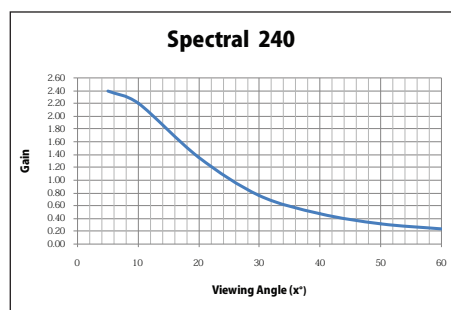
Using one of these methods, the screen surface is loosely attached to the top of the frame. After this, the top of the screen is fully attached to the top lacing bar by working from the centre out using each eyelet.

The lower edge of the screen should then be laced from the centre outwards, applying sufficient tension to pull the screen flat. Typically, the screen can be stretched up to 5% of its height at ambient temperature of 20/24°C-68/75°F using sisal cord lacing. Side lacing should be from the top down and sufficient to remove the flutes. Excessive side tension should be avoided, particularly on a curved frame, as it will result in straightening of the screen across the curve (belly).

Springs or elasticated ties are not recommended to install Harkness surfaces. The above method can be used for both lace-in and for wrap-round frames. Normally, two people are sufficient to install a screen.

Care and Maintenance

The general environment where the screen is installed should be kept reasonably clean to avoid dirt and dust build-up. Screens can be periodically cleaned using a soft brush or cloth, doing this vertically with limited pressure. Screens can be cleaned using a damp cloth wetted with water and a mild detergent. Under no circumstances should screens be cleaned with abrasive materials or harsh chemicals such as acids, bleaches or solvents. Harkness Screens is not liable for damage caused to screens through the use of inappropriate cleaning methods or chemicals.



In the interest of product enhancement, Harkness Screens reserves the right to introduce modifications or alterations without notice.



UK: +44 (0)1438 725 200 | USA: +1 540 370 1590
 FR: +33 238 979 776 | CN: +86 106 202 3923
 Email: sales@harkness-screens.com | Web: www.harkness-screens.com