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PROJECTION SCREEN SPECTRAL 240 3D PRODUCT DATA SHEET

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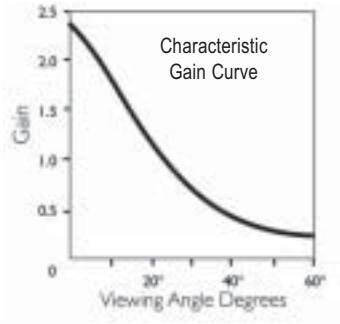
Harkness Hall Spectral™ 240 3D screens are considered by cinema exhibitors and special venue operators world-wide to be the optimum 3D projection surface. Silver aluminium flake based coating applied to the unique Harkness Hall base material provides high gain characteristics, very low depolarisation level and excellent colour temperature. The surface type also supports conventional 2D pictures, adding to operational versatility. Noted for invisible seams under normal projection conditions.



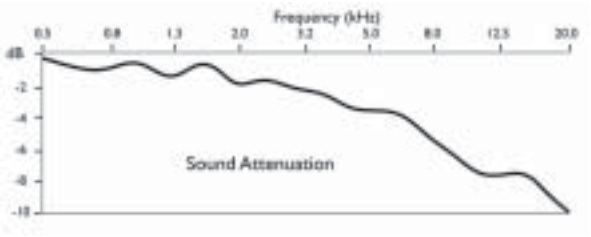
Application

Spectral™ 240 3D screens are recommended for lace-in stretching to wrap-round (floating) or conventional style flat or curved frames. Harkness Hall manufactured roller screens and Easi-Rect systems are other ideal applications.

The surface cannot be folded for transit or storage; roll packing must always be used.

Available in full screen perforated form where behind screen speakers are required (see attenuation curve).

Non-perforated option also available.



Surface Edging

- Web and eye (grommet). Triple fold web integral with surface
- Preformed pipe pocket any size on any side
- Cloth web and fixings (snaps) for press stud frames
- Straight sides or shaped to special order
- Cut square

General Detail

View Distance	Minimum of 5m (15') recommended on perforated surfaces
Maximum Size	UK manufacture: 29m x 10.8m (95' x 35') USA manufacture: 24.4m x 12.2m (80' x 40') Larger sizes available to special order
Perforation Size	Ø1.2mm (0.047")
Perforation Density	5.3%
Weight	0.46kg/m^2 (0.094lb/ft^2)
Eyelet Spacing	150mm (6") nominal

Fire Retardancy: Certification to standards including:-

UK BS5867 PT II (BS 3120);
France M1;
Spain M1;
Australia AS1530.2-93;
USA / Canada ULc CAN 4 S102-2;
Japan BT-08-050 *(Regulation requires certification by importing company)*

Typical Packing

Tube rolled. In a long wooden box when height over 7m (23')

Despatch / Storage

This screen type is rolled for initial transport. Storage in such a form for periods over two months should be avoided. 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. Packaging must be protected from mechanical damage at all times.

Installation

The following principles should be followed when installing Harkness Hall Spectral 240 3D screen surfaces.

• The auditorium should be clean with no building works taking place. • Installation should be at ambient temperature (24°C/74°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 must not be touched (the rear of the screen is identified by the product label).
• The surface must not be creased during installation.

There are two principle methods to install the screen surface:

• 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 pulll 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 outwards 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 should not be used to install Harkness Hall 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 surface.

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 brushed using a long handle soft brush, doing this vertically with limited pressure. Under no circumstances should the screens be made wet.