



The dnp Black Bead Screen is a unique screen with superior contrast and black levels. The screen is especially designed for control rooms and multi-screen applications and offers excellent viewing angles – both horizontally and vertically.



dnp optical rear  
projection screens

Matched with a modern powerful projector, the Black Bead Screen is the ideal display if your application requires a screen that effectively combats ambient light. The screen not only maximises the actual image contrast, it enhances the perceived contrast as the screen appears black when in repose. Designed for close-up viewing, it looks more like a sparkling poster than a projected image.

The Black Bead Screen is available in a Non-Glare (NG) Acrylic version which eliminates reflections from light sources such as windows, room lighting etc.

The Black Bead Screen combines dnp's Fresnel technology with 3M's advanced Vikuiti™ extended resolution.

- > Unsurpassed contrast and resolution
- > Superb centre-to-corner brightness uniformity
- > Non-Glare surface
- > Wide vertical and horizontal viewing angles
- > Easy-clean surface
- > Compatible with all standard projectors
- > 4K compatible

# dnp Black Bead Screen™ Specifications/General information

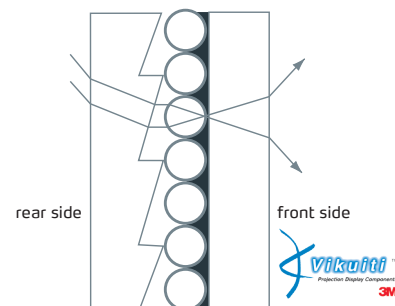
## Product details

Black Bead Screen Type		4:3 aspect ratio				16:9 aspect ratio		
Screen size		50"	60"	70"	80"	50"	60"	70"
<b>Dimensions</b>								
Width	mm	1040 +/-1	1245 +/-1	1438 +/-1	1625 +/-1	1140 +/-1	1360 +/-1	1590 +/-1
Height	mm	790 +/-1	940 +/-1	1138 +/-1	1219 +/-1	660 +/-1	780 +/-1	910 +/-1
Thickness	mm	6.3 +/-0.3	6.3 +/-0.3	6.3 +/-0.3	6.3 +/-0.3	6.3 +/-0.3	6.3 +/-0.3	6.3 +/-0.3
Weight	kg	6.1 +/-0.3	8.7 +/-0.3	12.2 +/-0.3	14.7 +/-0.3	5.6 +/-0.3	7.9 +/-0.3	10.8 +/-0.3
Width	inch	40.9 +/-0.04	49.0 +/-0.04	56.6 +/-0.04	64.0 +/-0.04	44.9 +/-0.04	53.5 +/-0.04	62.6 +/-0.04
Height	inch	31.1 +/-0.04	37.0 +/-0.04	44.8 +/-0.04	48.0 +/-0.04	26.0 +/-0.04	30.7 +/-0.04	35.8 +/-0.04
Thickness	inch	0.25 +/-0.01	0.25 +/-0.01	0.25 +/-0.01	0.25 +/-0.01	0.25 +/-0.01	0.25 +/-0.01	0.25 +/-0.01
Weight	lbs	13.5	19.2	26.8	32.5	12.3	17.4	23.7
<b>Image area</b>								
Width	mm	1016	1219.2	1400	1600	1107	1328	1550
Height	mm	762	914.4	1050	1200	623	747	872
Width	inch	40	48	55.1	63	43.6	52.3	61
Height	inch	30	36	41.3	47.2	24.5	29.4	34.3

A wide range of fresnel lens focal lengths are available to match the actual projection engine lens.  
Other screens sizes are available upon request.

## Screen profile (horizontal section)

The ultra fine pitch Fresnel lens distributes the projected image through a Black Bead element which consists of a layer of minute glass beads set within a film of black material. The projected light exits through this optical filter, leaving an almost completely black area which absorbs virtually all the ambient light.



## General specifications

<b>Optical specifications</b>	
Peak gain	1.0 +/-0.2
Lenticular pitch	Random glass bead alignment pattern

<b>Operating environment</b>	
Temperature	°C 5-35 °F 41-95
Humidity (non-condensing)	%RH 30-70

<b>Humidity/temperature expansion coefficient</b>	
Coefficient of thermal expansion (10 <sup>-6</sup> m/m/°C)	
Fresnel element	72
Front side element	72
See <a href="#">graph</a> for details on humidity expansion	

<b>Included in the package</b>	
Gloves, quality certificate	

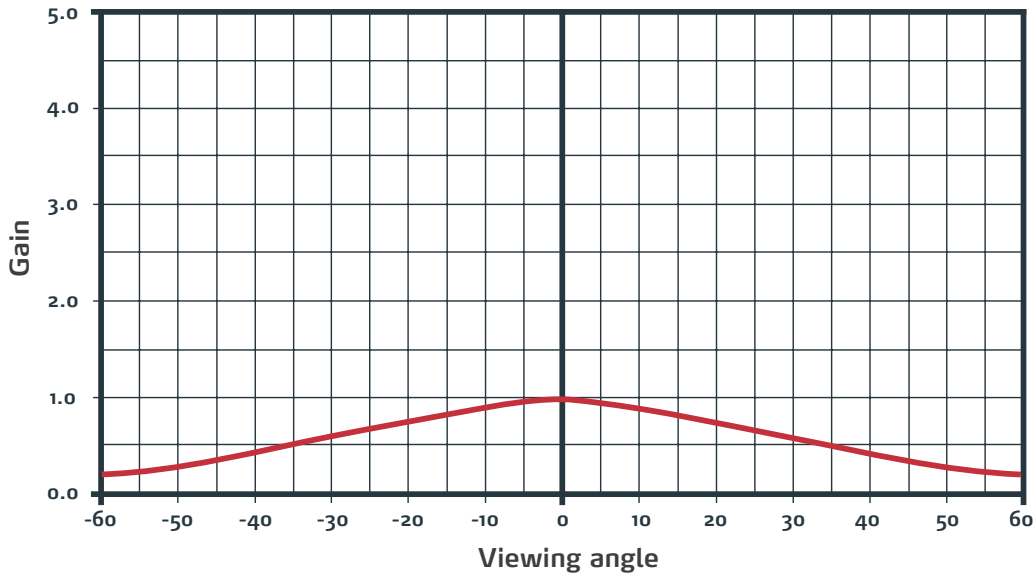
## Certificates



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Gain charts



Horizontal and Vertical

Half gain angles  
Horizontal: 35°  
Vertical: 35°