



The dnp Black Bead Plus 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 Plus 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.

The screen comes in 3 versions:

- > BBP Std is a screen fully based on low moisture absorbing polymer substrates. The front side of the screen is AG type (Anti Glare) meaning that it gives no mirror reflections of the ambient environment.
- > BBP Glass AG has identical AG type front side as BBP Std, however the substrate of the front screen element is glass which has an extremely high stability in terms of flatness and dimensional changes. The Fresnel element material is low humidity absorption polymer.
- > BBP Glass AR has a high quality optical AR (Anti Reflection) coating on the front side of the screen. The Fresnel element material is low humidity absorption polymer.

The Black Bead Screen Plus has significantly reduced sparkling compared to traditional beaded screens, and in addition it is based on base materials, which makes the screen dimension very stable to changes in surrounding environment. Both screen elements has a thickness of 3.0-3.8 mm, which insures a good mechanical stability.

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

Product details

Black Bead Plus Screen		BBP Std 80"			BBP Glass AR 70"			BBP Glass AG 70"	
Screen type		60"			67"			67"	
Screen size		60"			67"			70"	
Dimensions									
Width	mm	1787	1363*	1522*	1590*	1363*	1522*	1590*	
Height	mm	1012	780*	871*	910*	780*	871*	910*	
Thickness	mm	7.2	6.3	6.3	7.0	6.5	6.5	7.2	
Weight	kg	15.4	11.3	13.6	15.5	11.3	13.6	15.5	
Width	inch	70.4	53.7	59.9	62.6*	53.7*	59.9*	62.6*	
Height	inch	39.8	30.7	34.3	35.8*	30.7*	34.3	35.8*	
Thickness	inch	0.28	0.25	0.25	0.28	0.26	0.26	0.28	
Weight	lbs	33.9	29.4	30.0	34.2	24.9	30.0	34.2	
Image area									
Width	mm	1772	1329	1484	1551	1329	1484	1551	
Height	mm	997	748	835	872	748	835	872	
Width	inch	69.8	52.3	58.4	61.0	52.3	58.4	61.0	
Height	inch	39.3	29.4	32.9	34.3	29.4	32.9	34.3	

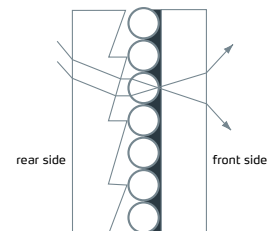
A wide range of fresnel lens focal lengths are available to match the actual projection engine lens.
Other screens sizes are available upon request.

Screen sizes are offered as standard in 16:9 aspect ratio, however other sizes are available upon request.

*Front element (glass) are delivered pre-cut to final image size. Fresnel elements (polymer) are delivered oversize to be soaked before cutting.

Screen profile (horizontal section)

The ultra fine pitch Fresnel lens distributes the projected image through a Black Bead Plus 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

Optical specifications	BBP Std	BBP Glass AR	BBP Glass AG
Peak gain	0.6 +/- 0.15	0.8 +/- 0.15	0.7 +/- 0.15
Lenticular pitch	Random glass bead alignment pattern	Random glass bead alignment pattern	Random glass bead alignment pattern
Surface characteristic	Anti Glare	Anti Reflection	Anti Glare
Operating environment			
Temperature	°C	5-35	
	°F	41-95	
Humidity (non-condensing)	%RH	30-70	
Temperature expansion coefficient			
Polymer fresnel and BBP Std front element	72 x 10(-6) m/m/°C		
Glass front screen element	8,6 x 10(-6) m/m/°C		
Humidity expansion coefficient			
Polymer fresnel and BBP Std front element	See humidity graph		
Glass front screen element	0		
Included in the package			
Gloves, quality certificate			

Certificates



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Gain charts

