



Products: Polka-Dot Beamsplitters



Polka-dot beamsplitters offer an inexpensive broadband-constant reflection/transmission range compared to dielectric beamsplitters. Polka-dot beamsplitters, which are relatively insensitive to angle, operate by reflecting light that strikes their coated "dots" and transmitting the rest of the incident light through their substrate material.

These beamsplitters do not show any significant divergence or diffraction effects and are ideal for use with broadband sources like xenon, deuterium, and tungsten halogen. They are often utilized in precision optical systems, spectrometers, and medical systems.

Our polka-dot beamsplitters offer unique broadband performance that other manufacturers are unable to match. Employing a patented UV coating process, we can provide broadband beamsplitter performance down to 120 nm, depending on the coating/substrate selected. Our standard UV-NIR broadband polka-dot beamsplitters deliver performance from 190 nm to 2500 nm via the Acton #1900 coating process.

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Overview

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UV/NIR Polka Dot Beamsplitters

Wavelength Range (nm)	Ratio	1.0" Diameter 2 mm Thick	2.0" Diameter 4 mm thick
UV-enhanced broadband			
190 - 2500 nm	50/50	PBS-1900-1D	PBS-1900-2D
Broadband			
250 - 2500 nm	50/50	PBS-2500-1D	PBS-2500-2D

NOTE: Specifications are subject to change.

Substrate Specifications:	
Material	UV fused silica
Diameter tolerance	+0.00/-0.005"
Thickness tolerance	+/-0.25mm
Surface quality	better than 2 waves @ 633nm both sides
Parallelism	3 arc min
Scratch/Dig	20-10
Chamfer	0.5mm x 45 degrees
Clear aperture	Central 90% min.
Angle of incidence	0-45 degrees
Coating	round coated dots