

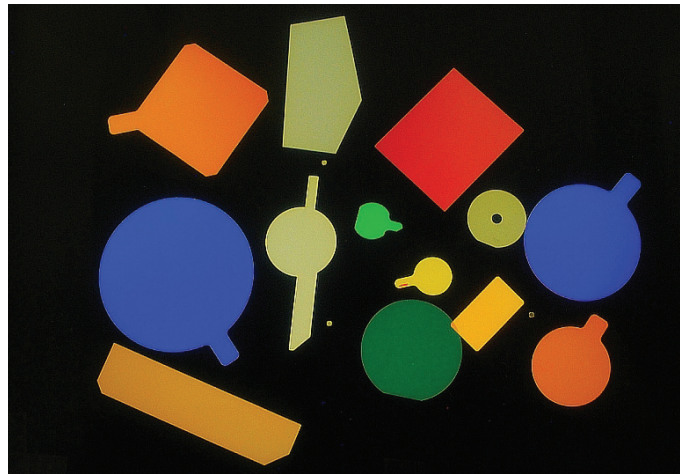
POLYMER FILM RETARDERS

Meadowlark Optics is pleased to present our Bare Polymer Film Retarder. Our proprietary polymer film provides high retardance accuracy in a cost effective product which can be provided in almost any configuration and quantity. The temperature dependence of the nominal retardance is approximately 0.01%/°C, which provides a very stable and versatile polarization solution.

Manufactured in-house for wavelengths between 400 and 1800 nm, this retarder is ideal for applications requiring a high precision, thin and cost effective solution. We are also able to tune the retardance to your Angle of Incidence to optimize performance. AR coatings are available on a special order basis.

Standard shapes and retardance values are available when quick turn-around is needed. We can also accommodate requests for custom shapes sizes (up to 4 inches) and retardance values.

Please contact a Meadowlark Optics Sales Engineer for assistance with your custom requirements.



Key Features

- Very thin profile
- Thermally stable
- High volume scalable
- AR coatings available
- Custom retardance available

SPECIFICATIONS	
Substrate Material	Polymer Film
Thickness	0.005 inch (127 μm), nominal
Wavelength Range	400-1800 nm
Retardance Ranges Single Layer Double Layer	20-1600 nm 1600-3000 nm
Reflectance	~4% per surface
Retardance Variation	≤ 2%/inch
Retardance Accuracy	± λ/300
Acceptance Angle	± 6°
Transmitted Wavefront Distortion (per inch)	≤ 2λ (P-V @ 633) [≤ λ/2 (RMS @ 633)]
Surface Quality	80-50 scratch-dig
Beam Deviation	≤ 30 arc sec
Operating Temperature	-40° C to +60° C

ORDERING INFORMATION			
Round			
Dimensions (in.)	Clear Aperture (in.)	Part Number	
Ø0.50	0.45	λ/4 Wave:	BQ-050-λ
		λ/2 Wave:	BH-050-λ
Ø1.00	0.90	λ/4 Wave:	BQ-100-λ
		λ/2 Wave:	BH-100-λ
Ø1.50	1.35	λ/4 Wave:	BQ-150-λ
		λ/2 Wave:	BH-150-λ
Ø2.00	1.80	λ/4 Wave:	BQ-200-λ
		λ/2 Wave:	BH-200-λ
Square			
Dimensions (in.)	Clear Aperture (in.)	Part Number	
0.50 x 0.50	0.50 x 0.50	λ/4 Wave:	BQ-050x050-λ
		λ/2 Wave:	BH-050x050-λ
1.00 x 1.00	0.90 x 0.90	λ/4 Wave:	BQ-100x100-λ
		λ/2 Wave:	BH-100x100-λ
1.50 x 1.50	1.35 x 1.35	λ/4 Wave:	BQ-150x150-λ
		λ/2 Wave:	BH-150x150-λ
2.00 x 2.00	1.80 x 1.80	λ/4 Wave:	BQ-200x200-λ
		λ/2 Wave:	BH-200x200-λ
Note: Dimensions are +/-0.02			

