



May 2003

Specification Sheet

Achromatic Waveplates

The achromatic waveplate is a versatile laboratory or optical system component. This cost effective unit can replace the need to purchase many narrowband retarders due to its nearly constant retardance over a wide wavelength range.

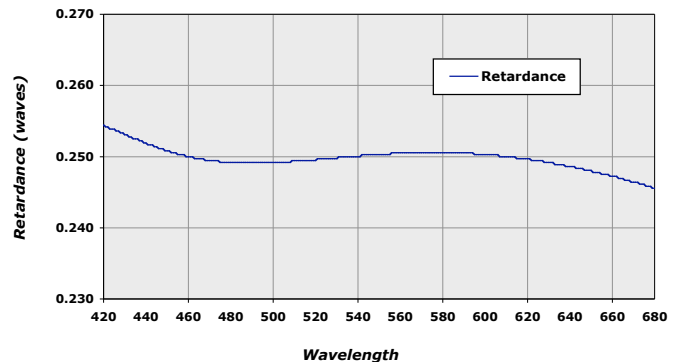
The achromatic waveplate is a specially designed multilayer polymer stack laminated between two optically flat BK-7 windows, which have been antireflection coated.

Increased field of view, larger acceptance angles and an exceptional wide bandwidth are among some of the advantages our achromatic polymer waveplates have over standard MgF_2 – Quartz achromats.

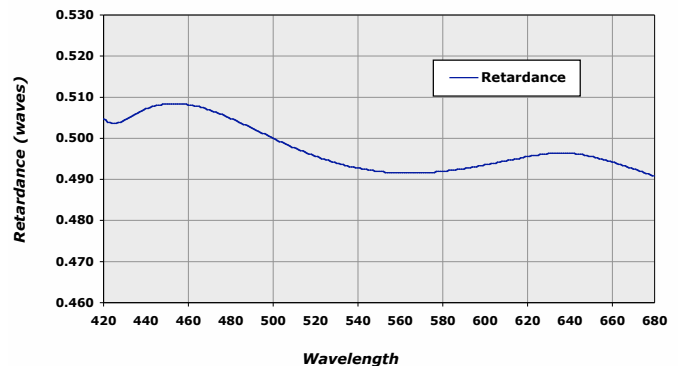
Competitive Advantages

- Price
- Very wide bandwidth
- Optic axis stability
- Temperature tolerance

Quarterwave Achromat 420-680nm



Halfwave Achromat 420-680nm



Specification	Description		
Birefringent Material	Polymer	Wedge	≤ 2 arc minutes
Wavelength	$\lambda/4$ or $\lambda/2$, over visible region from 425–680nm	Scratch/Dig	40-20
Substrates	BK-7, grade-A, fine annealed	Reflectance	≤ 0.5% loss per surface (normal incidence)
Size	25.4mm outer diameter, 80% clear aperture (20mm), 4.75mm thick	Acceptance Angle	± 7 degrees
Retarder Accuracy	± $\lambda/100$ or .01 waves	Optic Axis Stability	≤ 1 degree
Wavefront Distortion	$\lambda/4$ evaluated @ 632.8nm	Temperature Range	-20° Celsius to +50° Celsius
Beam Deviation	≤ 1 minutes	Damage Threshold	500 Watt/cm ² CW .3 J/cm ² 10 nsec pulses @ 532nm typical