

50.8mm Dia, 550 - 750nm, $\lambda/4$ Achromatic Waveplate



Achromatic Waveplates (Retarders)

Stock **#39-040** [CONTACT US](#)

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+

A\$5,592⁰⁰

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Volume Pricing	
Qty 1-5	A\$5,592.00 each
Qty 6+	A\$4,840.00 each
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General

Achromatic Waveplate	Type:
Air Spaced	Configuration:

Physical & Mechanical Properties

>34.0	Clear Aperture CA (mm):
	Diameter (mm):

50.80	
Thickness (mm):	6.00 ±0.2
Dimensional Tolerance (mm):	+0/-0.25
Construction:	Crystalline
Parallelism (arcsec):	<10
Housing Tolerance (mm):	+0/-0.25

Optical Properties	
Coating:	R _{avg} <0.75% @ 550 - 750nm
Substrate: □	Crystal Quartz and MgF ₂
Retardance:	$\lambda/4$
Surface Quality:	40-20
Transmitted Wavefront, P-V:	< $\lambda/4$ @ 632nm
Retardance Tolerance:	$\lambda/100$ @ 20°C
Coating Specification:	R _{avg} <0.75% @ 550 - 750nm
Wavelength Range (nm):	550 - 750
Damage Threshold, By Design: □	>5 J/cm ² @ 1064nm, 10ns, 10Hz

Regulatory Compliance	
RoHS 2015:	Compliant
Certificate of Conformance:	View
Reach 247:	Compliant

Product Details

- Multiple Wavelength Ranges Available
- Flat Response Over Each Broad Spectral Range
- $\lambda/4$ and $\lambda/2$ Retardance
- Mounted in Black Anodized Aluminum Housing

Achromatic Waveplates (Retarders) provide a constant phase shift independent of the wavelength of light that is used. This wavelength independence is achieved by using two different birefringent crystalline materials. The relative shifts in retardation over the wavelength range are balanced between the two materials used. Achromatic Waveplates (Retarders), with their flat response, are ideal for use with tunable lasers, multiple laser line systems, and other broad-spectrum sources.

Designed to be used at an angle of incidence of 0°, changes of ±3° will yield less than 1% change in retardance. The 23mm clear aperture waveplates will feature a cemented construction. All Achromatic Waveplates (Retarders) are mounted in an anodized aluminum housing with the fast axis clearly indicated.

Technical Information



25.4mm Diameter Waveplates



30.0mm Diameter Waveplates

