

## 30mm Dia, 700-1000nm, $\lambda/4$ Achromatic Waveplate



Achromatic Waveplates (Retarders)

Stock #48-499 **5 In Stock**

⊖ 1 ⊕ A\$1,904<sup>00</sup>

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### Product Downloads

#### General

Achromatic Waveplate **Type:**

Cemented **Configuration:**

#### Physical & Mechanical Properties

23 **Clear Aperture CA (mm):**

**Diameter (mm):**

30.00

6.00 ±0.15 **Thickness (mm):**

<1 **Parallelism (arcmin):**

+0/-0.25 **Dimensional Tolerance (mm):**

Crystalline **Construction:**

+0/-0.25 **Housing Tolerance (mm):**

## Optical Properties

$R_{avg} < 0.6\%$  @ 700 - 1000nm **Coating:**

Crystal Quartz and  $MgF_2$  **Substrate:**

$\lambda/4$  **Retardance:**

20-10 **Surface Quality:**

$\lambda/4$  @ 633nm **Transmitted Wavefront, P-V:**

$\leq \lambda/100$  **Retardance Tolerance:**

<1/500 **Temperature Coefficient ( $\lambda/^\circ C$ ):**

$R_{avg} < 0.6\%$  @ 700 - 1000nm **Coating Specification:**

700 - 1000 **Wavelength Range (nm):**

500 kW/cm<sup>2</sup> **Damage Threshold, By Design:**

## Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[Compliant](#) **Reach 209:**

[View](#) **Certificate of Conformance:**

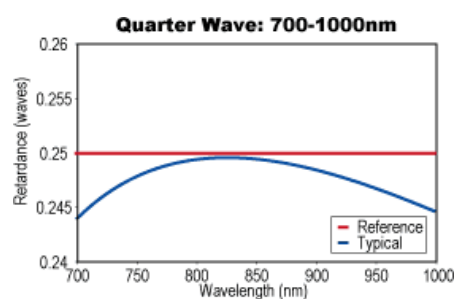
## Product Details

- 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  $0^\circ$ , changes of  $\pm 3^\circ$  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



30.0mm Diameter Waveplates

