









Achromats and Cylindrical Lens Selection Guide

Newport offers a wide variety of cylindrical lenses made from BK7, fused silica, and achromatic lenses from several high grade optical glasses. Cylindrical lenses offering include Plano convex in both rectangular and circular shapes, and Plano concave in rectangular shape only. Achromatic lenses are excellent focusing component to reduce the chromatic aberrations from broadband light sources used in many analytical and medical devices. Newport cylindrical lenses and achromats can be purchased with antireflection coating to maximize the transmission in UV, Visible, near IR wavelength regime.

Selecting an Achromat or Cylindrical Lens

Click [Achromats & Cylindrical Lenses](#) to shop or browse all of our standard models, or select a product series below for more information on our products and capabilities.

Cylindrical Lenses		Features
	BK 7 Precision Cylindrical Lenses	<ul style="list-style-type: none"> • BK 7 optical glass • $\leq \lambda / 2$ surface irregularity in Y, $\lambda / 4/\text{cm}$ in X • 40-20 scratch-dig • Broadband or laser line AR coatings • Available in both round and rectangular shapes
	UV Fused Silica Precision Cylindrical Lenses	<ul style="list-style-type: none"> • UV grade fused silica • $< \lambda / 2$ surface irregularity in Y, $\lambda / 4/\text{cm}$ in X • 40-20 scratch-dig • Broadband or laser line AR coatings • Standard sizes and focal lengths
	Precision Cylindrical BK7 Lens Sets	<ul style="list-style-type: none"> • BK 7 optical glass • Plano-convex and plano-concave cylindrical lenses • Easy to identify edge-marked product numbers • Conveniently organized in a protective hardwood case
Achromats		Features
	Visible Achromatic Doublet Lenses	<ul style="list-style-type: none"> • Superior performance to singlet lenses • Nearly constant focal length across the visible spectrum • Far superior off-axis performance • Multi-layer or single-layer AR coatings • Standard diameters and focal lengths interchange with our singlet lenses
	Broadband UV-VIS Achromatic Lenses	<ul style="list-style-type: none"> • Greater than 90% transmission from 360 to 700 nm • Ideal for fluorescence, UV LEDs , UV light source and Nd: YAG laser applications • Available in standard 0.5" (12.5 mm) or 1.0" (25.0) diameter sizes
	Near IR Achromatic Lenses	<ul style="list-style-type: none"> • Superior performance to singlet lenses • Nearly constant focal length across the near IR spectrum • Far superior off-axis performance • Broadband AR Coating has $< 1\%$ Reflectivity Between 750-1550 nm • Minimize Spherical Aberration for Monochromatic Source
	Achromatic Aspherical Lenses	<ul style="list-style-type: none"> • Superior performance to singlet lenses • Far superior color correction performance than standard achromats • Similar spherical aberration correction to machined aspheres • Available in sizes from 9.0 to 25.0 mm diameters
	IR Achromatic Lenses	<ul style="list-style-type: none"> • Color corrected for 3 to 5 μm • Ideal for vibrational IR Spectroscopy and thermal imaging applications • Designed to provide near diffraction limited performance