

TECHSPEC[®] 12.0mm Dia. x -48 FL, YAG-BBAR, Plano-Concave Lens



Stock #21-314 5 In Stock

-

1

+

A\$81⁰⁰

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Volume Pricing	
Qty 1-9	A\$81.60 each
Qty 10-25	A\$73.20 each
Qty 26-49	A\$65.20 each
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SPECIFICATIONS

General

Type:

Plano-Concave Lens

Physical & Mechanical Properties

12.00	Diameter (mm):
Protective as needed	Bevel:
3.50 ±0.05	Center Thickness CT (mm):
<1	Centering (arcmin):
11.00	Clear Aperture CA (mm):
4.12	Edge Thickness ET (mm):
Optical Properties	
-48.00	Effective Focal Length EFL (mm):
N-BK7	Substrate: <input type="checkbox"/>
1.00	f#:
0.13	Numerical Aperture NA:
YAG-BBAR (500-1100nm)	Coating:
500 - 1100	Wavelength Range (nm):
-50.31	Back Focal Length BFL (mm):
R _{abs} <0.25% @ 532nm R _{abs} <0.25% @ 1064nm R _{avg} <1.0% @ 500 - 1100nm	Coating Specification:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
-24.81	Radius R ₁ (mm):
40-20	Surface Quality:
5 J/cm ² @ 532nm, 10ns	Damage Threshold, By Design: <input type="checkbox"/>
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

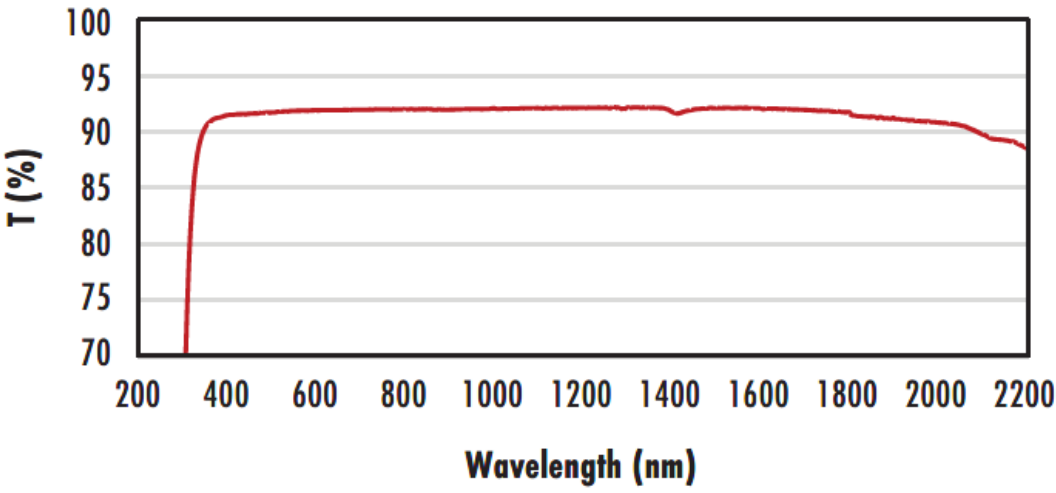
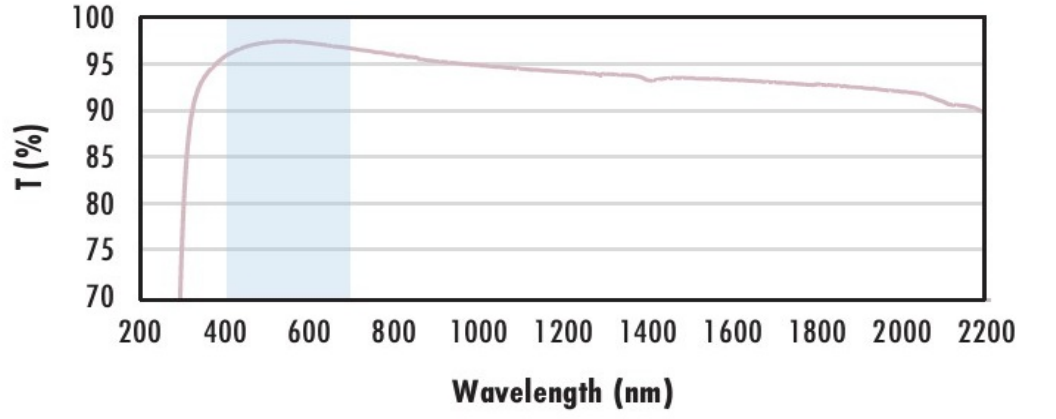
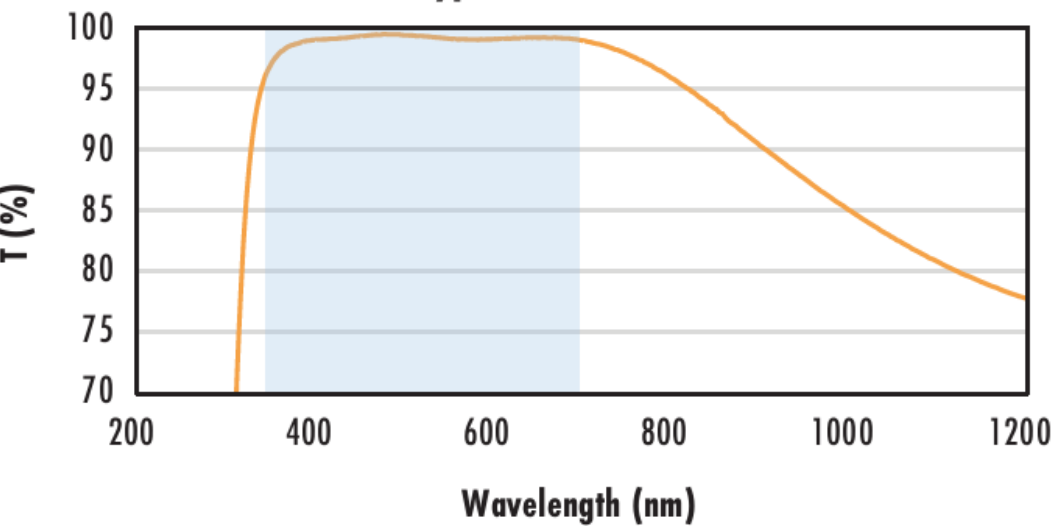
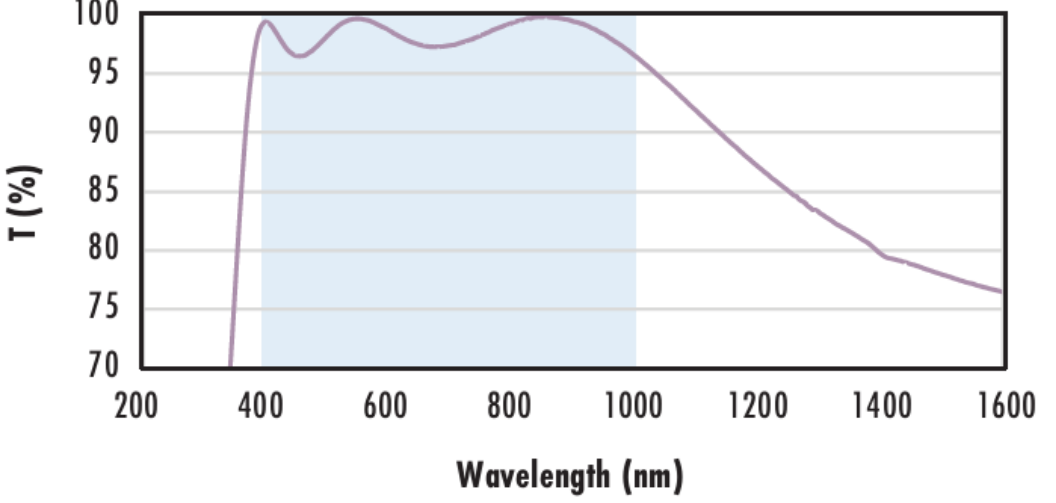
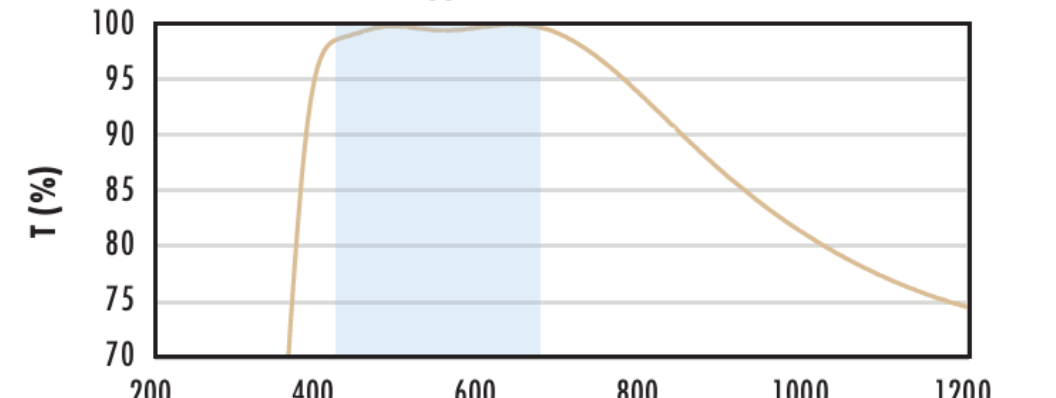
PRODUCT DETAILS

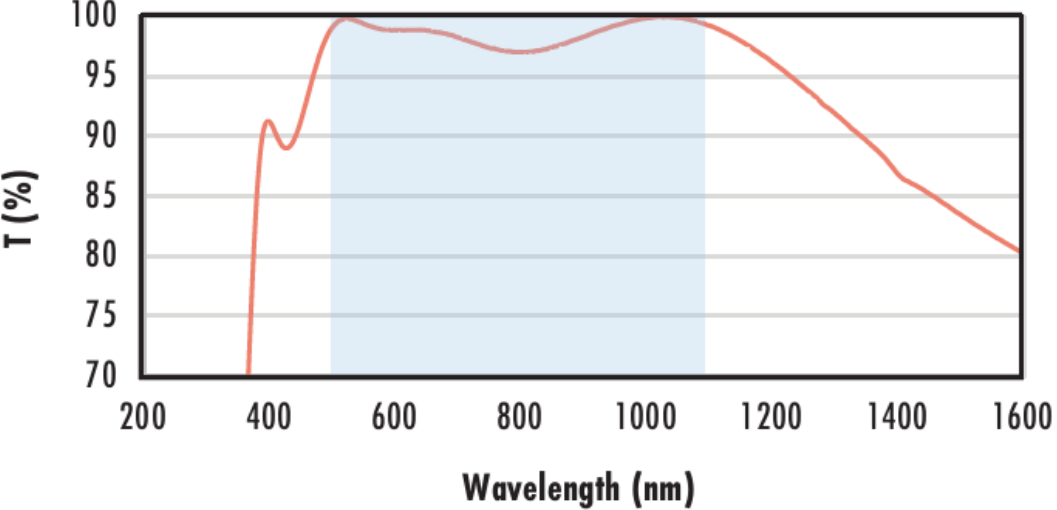
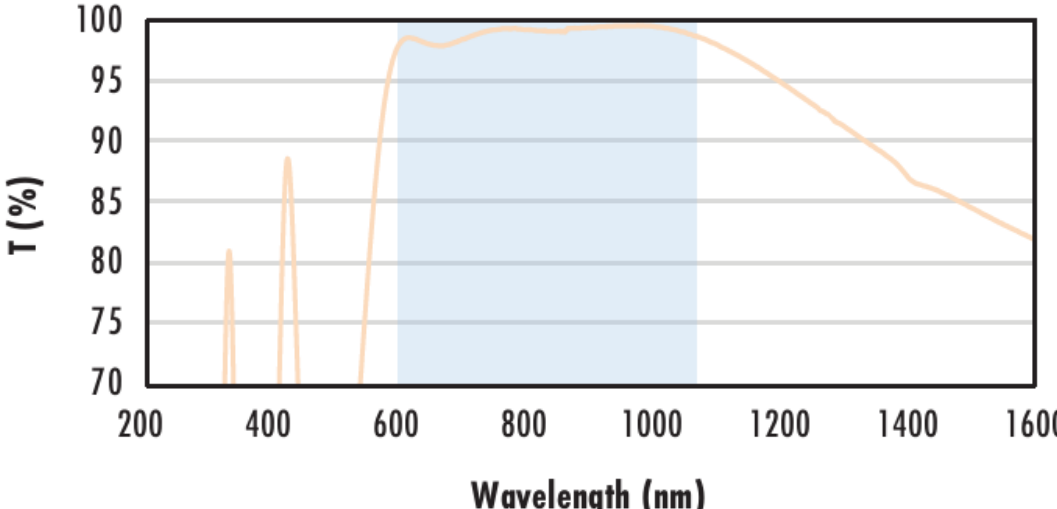
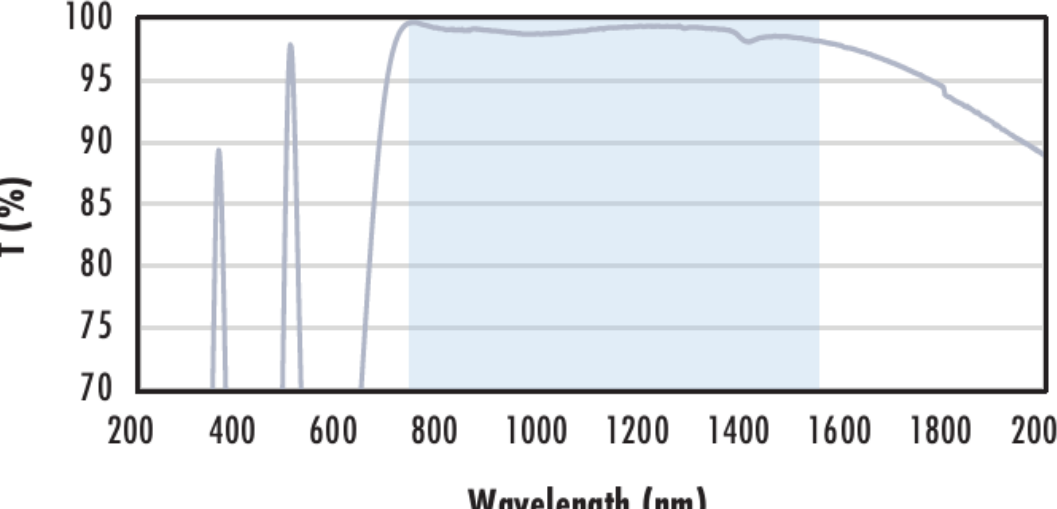
- Negative Focal Lengths for Beam Expansion or Light Projection Applications
- Optimized for R<0.25% at both 532nm and 1064nm
- AR Coated to Provide <1.0% Reflectance per Surface for 500 - 1100nm
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), and [1064nm V-Coat](#)

TECHSPEC® YAG-BBAR Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® YAG-BBAR Coated Plano-Concave (PCV) Lenses feature less than 0.25% reflection at common Nd:YAG laser wavelengths of 532nm and 1064nm. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), or with [NIR II](#) AR coating options.

TECHNICAL INFORMATION

N-BK7	
Uncoated N-BK7 Typical Transmission	

<p>Uncoated N-BK7 Typical Transmission</p> 	<p>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.</p> <p>Click Here to Download Data</p>
<p>N-BK7 with MgF₂ Coating Typical Transmission</p> 	<p>Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>$R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<p>N-BK7 with VIS-EXT Coating Typical Transmission</p> 	<p>Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<p>N-BK7 with VIS-NIR Coating Typical Transmission</p> 	<p>Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>$R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<p>N-BK7 with VIS 0° Coating Typical Transmission</p> 	<p>Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>$R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>

<div><div>Wavelength (nm)</div><div><div>N-BK7 with YAG-BBAR Coating</div><div>Typical Transmission</div><div></div></div></div>	<div><div>Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><div>$R_{abs} \leq 0.25\%$ @ 532nm</div><div>$R_{abs} \leq 0.25\%$ @ 1064nm</div><div>$R_{avg} \leq 1.0\%$ @ 500 - 1100nm</div></div><div>Data outside this range is not guaranteed and is for reference only.</div><div>Click Here to Download Data</div></div>
<div><div>Wavelength (nm)</div><div><div>N-BK7 with NIR I Coating</div><div>Typical Transmission</div><div></div></div></div>	<div><div>Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div>$R_{avg} \leq 0.5\%$ @ 600 - 1050nm</div><div>Data outside this range is not guaranteed and is for reference only.</div><div>Click Here to Download Data</div></div>
<div><div>Wavelength (nm)</div><div><div>N-BK7 with NIR II Coating</div><div>Typical Transmission</div><div></div></div></div>	<div><div>Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><div>$R_{abs} \leq 1.5\%$ @ 750 - 800nm</div><div>$R_{abs} \leq 1.0\%$ @ 800 - 1550nm</div><div>$R_{avg} \leq 0.7\%$ @ 750 - 1550nm</div></div><div>Data outside this range is not guaranteed and is for reference only.</div><div>Click Here to Download Data</div></div>

CUSTOM

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

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