

TECHSPEC<sup>®</sup> 3.0mm Dia. x 4.5mm FL, YAG-BBAR Coated Plano-Convex Lens



YAG-BBAR Coated Plano-Convex (PCX) Lenses



Stock **#88-775** **15 In Stock**

☐ [Other Coating Options](#)

-

1

+

₹5,372

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | ₹5,372 each                   |
| Qty 10-24      | ₹4,827 each                   |
| Qty 25-49      | ₹4,282 each                   |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:  
Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

|                           |                      |
|---------------------------|----------------------|
| 3.00 +0.0/-0.025          |                      |
| Centering (arcmin):       | 30-45, typical       |
| Center Thickness CT (mm): | 1.80 ±0.05           |
| Edge Thickness ET (mm):   | 1.47                 |
| Clear Aperture CA (mm):   | 2.5                  |
| Bevel:                    | Protective as needed |

|                                                       |                                                                                                              |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Optical Properties                                    |                                                                                                              |
| Effective Focal Length EFL (mm):                      | 4.50 @ 587.6nm                                                                                               |
| Back Focal Length BFL (mm):                           | 3.5                                                                                                          |
| Coating:                                              | YAG-BBAR (500-1100nm)                                                                                        |
| Coating Specification:                                | R <sub>abs</sub> <0.25% @ 532nm<br>R <sub>abs</sub> <0.25% @ 1064nm<br>R <sub>avg</sub> <1.0% @ 500 - 1100nm |
| Substrate: <input type="checkbox"/>                   | N-LASF44                                                                                                     |
| Surface Quality:                                      | 20-10                                                                                                        |
| Power (P-V) @ 632.8nm:                                | 1.5λ                                                                                                         |
| Irregularity (P-V) @ 632.8nm:                         | λ/4                                                                                                          |
| Focal Length Tolerance (%):                           | ±1                                                                                                           |
| Radius R <sub>1</sub> (mm):                           | 3.62                                                                                                         |
| f##:                                                  | 1.5                                                                                                          |
| Numerical Aperture NA:                                | 0.33                                                                                                         |
| Wavelength Range (nm):                                | 500 - 1100                                                                                                   |
| Damage Threshold, By Design: <input type="checkbox"/> | 5 J/cm <sup>2</sup> @ 532nm, 10ns                                                                            |

|                             |                                     |
|-----------------------------|-------------------------------------|
| Regulatory Compliance       |                                     |
| RoHS 2015:                  | Compliant                           |
| Certificate of Conformance: | View                                |
| Reach 235:                  | Compliant                           |
| Country of Origin:          | United States                       |
| Imported By:                | Edmund Optics India Private Limited |

## Need different specs or modifications?

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

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

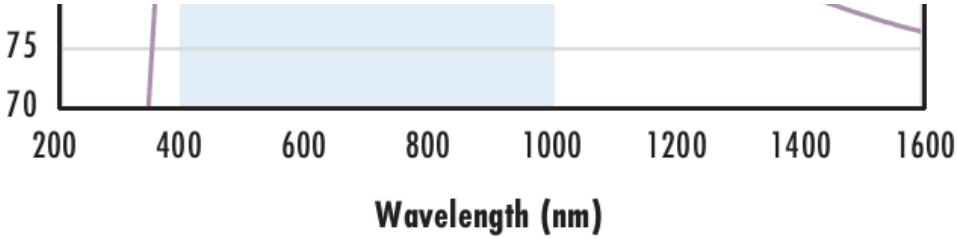
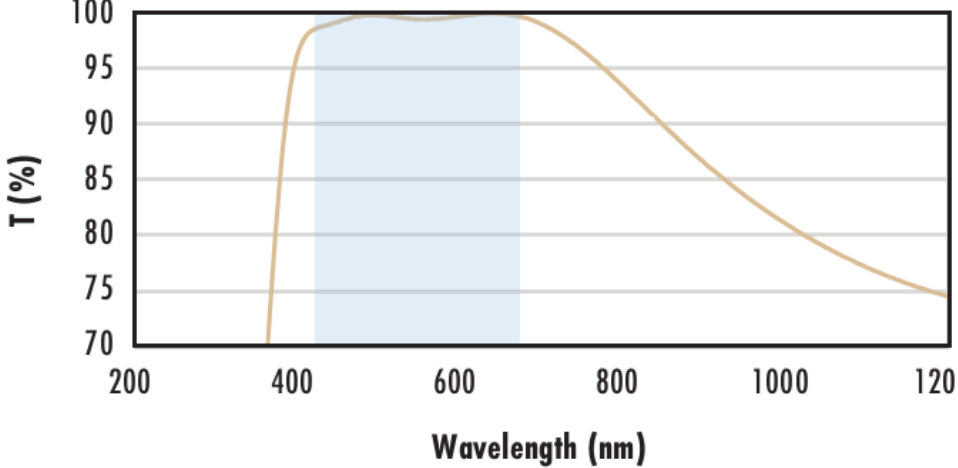
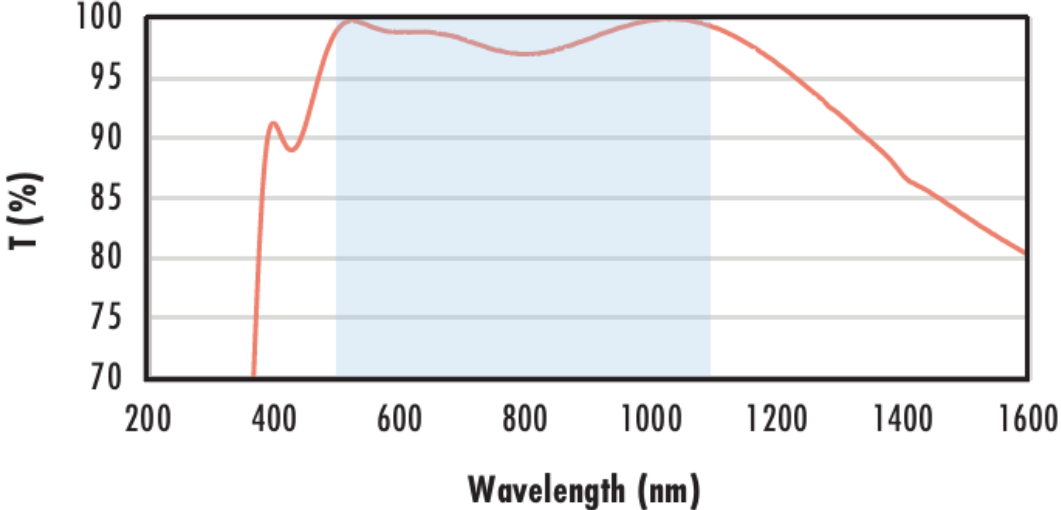
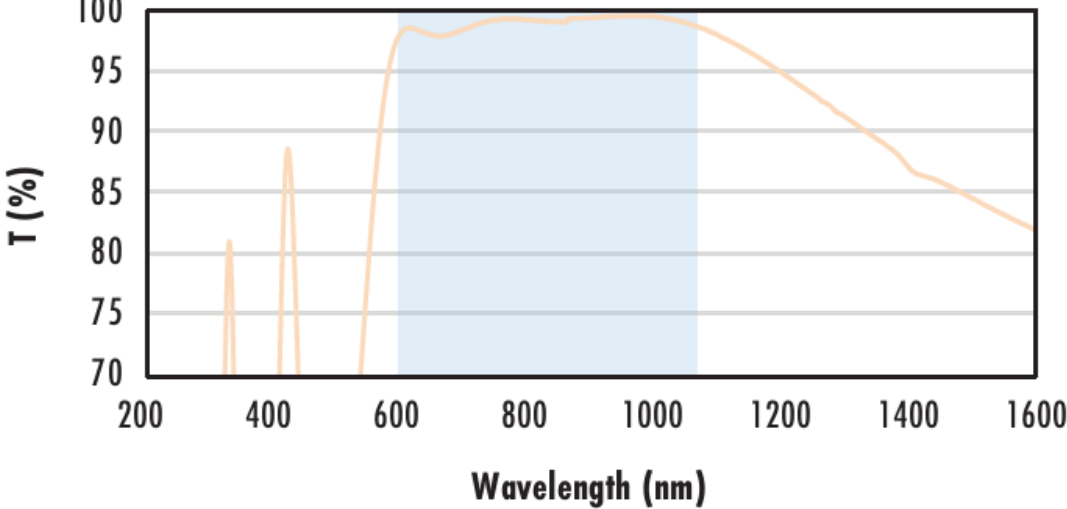
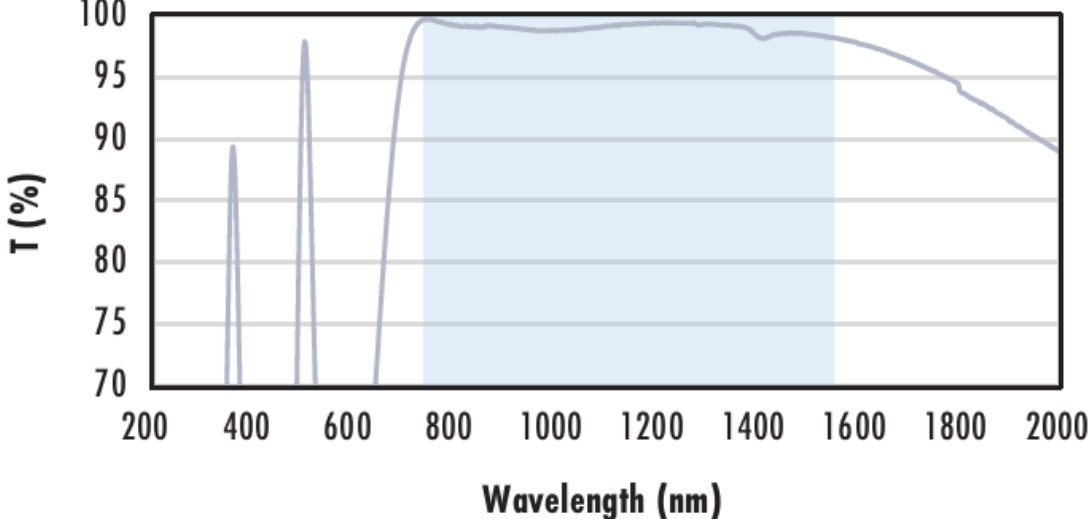
- Optimized for R<0.25% @ Both 532nm and 1064nm
- AR Coated to Provide <1.0% Reflectance per Surface for 500 - 1100nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), and [VIS-EXT](#)

TECHSPEC® YAG-BBAR Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters,

Technical Information



| N-BK7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div><h3>Uncoated N-BK7 Typical Transmission</h3><p>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.</p><p><a href="#">Click Here to Download Data</a></p></div>                                                                                                                                                                                                                                                                                             |  |
| <div><h3>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</h3><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><math>R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}</math></p><p>Data outside this range is not guaranteed and is for reference only.</p><p><a href="#">Click Here to Download Data</a></p></div> |  |
| <div><h3>N-BK7 with VIS-EXT Coating Typical Transmission</h3><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><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></p><p>Data outside this range is not guaranteed and is for reference only.</p><p><a href="#">Click Here to Download Data</a></p></div>               |  |
| <div><h3>N-BK7 with VIS-NIR Coating Typical Transmission</h3><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><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></p></div>         |  |

|                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>75<br/>70</p> <p>200 400 600 800 1000 1200 1400 1600</p> <p>Wavelength (nm)</p>                                                                                                                                       | <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>  <p>100<br/>95<br/>90<br/>85<br/>80<br/>75<br/>70</p> <p>200 400 600 800 1000 1200</p> <p>Wavelength (nm)</p> <p>T (%)</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><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                        |
| <p><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  <p>100<br/>95<br/>90<br/>85<br/>80<br/>75<br/>70</p> <p>200 400 600 800 1000 1200 1400 1600</p> <p>Wavelength (nm)</p> <p>T (%)</p>         | <p>Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>           |
| <p><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>  <p>100<br/>95<br/>90<br/>85<br/>80<br/>75<br/>70</p> <p>200 400 600 800 1000 1200 1400 1600</p> <p>Wavelength (nm)</p> <p>T (%)</p>            | <p>Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                     |
| <p><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  <p>100<br/>95<br/>90<br/>85<br/>80<br/>75<br/>70</p> <p>200 400 600 800 1000 1200 1400 1600 1800 2000</p> <p>Wavelength (nm)</p> <p>T (%)</p> | <p>Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

