

TECHSPEC<sup>®</sup> 20.0mm Dia. x -40 FL, YAG-BBAR, Plano-Concave Lens



Stock **#21-316** 1 In Stock

-

1

+

₹3,776

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | ₹3,776 each                   |
| Qty 10-25      | ₹3,386 each                   |
| Qty 26-49      | ₹3,017 each                   |
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SPECIFICATIONS

General

Plano-Concave Lens

Type:

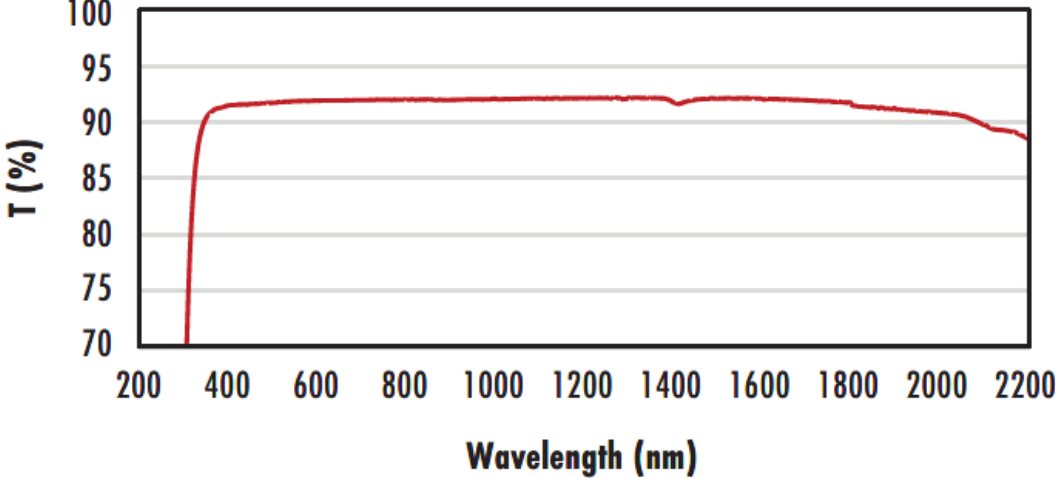
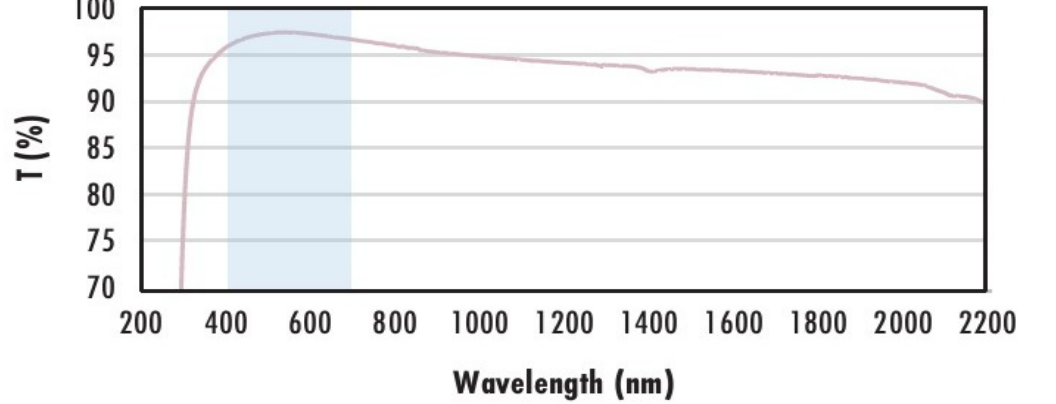
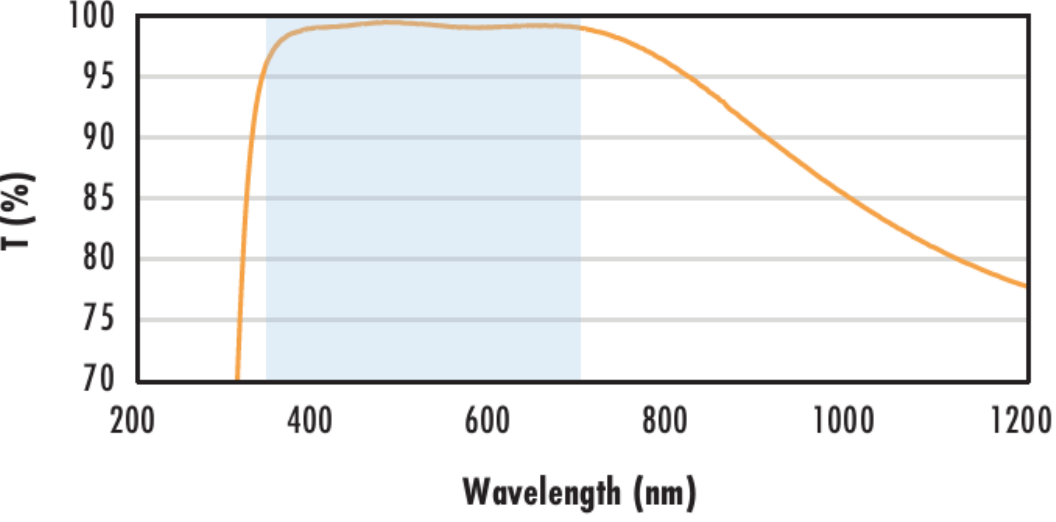
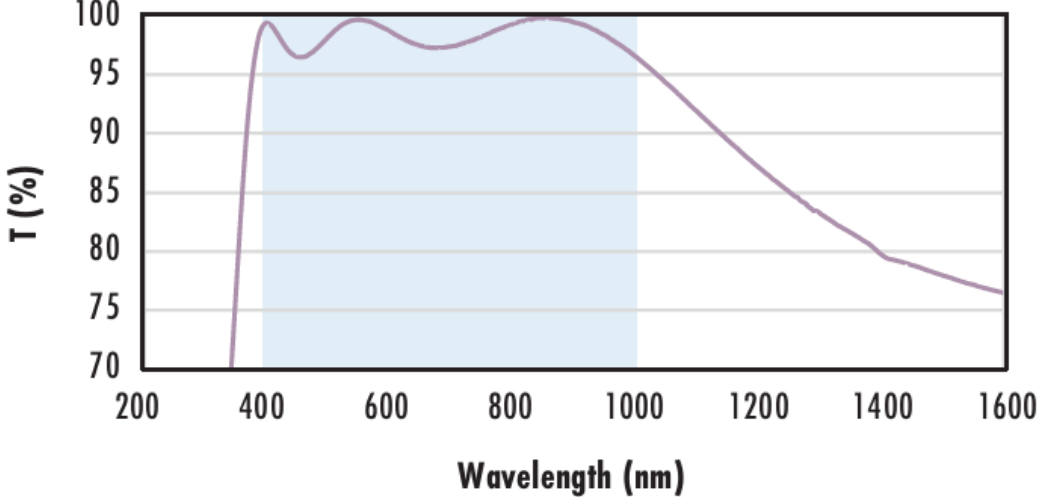
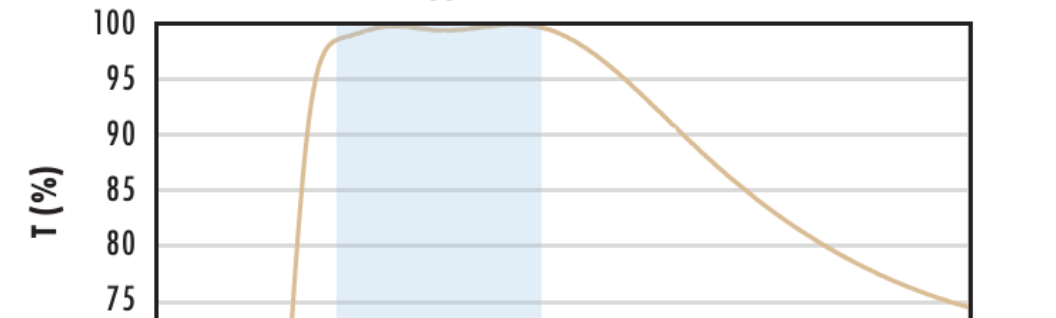
| Physical & Mechanical Properties                                                                             |                                                   |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 20.00                                                                                                        | Diameter (mm):                                    |
| Protective as needed                                                                                         | Bevel:                                            |
| 3.50 ±0.10                                                                                                   | Center Thickness CT (mm):                         |
| <1                                                                                                           | Centering (arcmin):                               |
| 19.00                                                                                                        | Clear Aperture CA (mm):                           |
| 5.69                                                                                                         | Edge Thickness ET (mm):                           |
| Optical Properties                                                                                           |                                                   |
| -40.00                                                                                                       | Effective Focal Length EFL (mm):                  |
| N-BK7                                                                                                        | Substrate: <input type="text"/>                   |
| 1.5                                                                                                          | f/#:                                              |
| 0.25                                                                                                         | Numerical Aperture NA:                            |
| YAG-BBAR (500-1100nm)                                                                                        | Coating:                                          |
| 500 - 1100                                                                                                   | Wavelength Range (nm):                            |
| -42.31                                                                                                       | Back Focal Length BFL (mm):                       |
| R <sub>abs</sub> <0.25% @ 532nm<br>R <sub>abs</sub> <0.25% @ 1064nm<br>R <sub>avg</sub> <1.0% @ 500 - 1100nm | Coating Specification:                            |
| 587.6                                                                                                        | Focal Length Specification Wavelength (nm):       |
| ±1                                                                                                           | Focal Length Tolerance (%):                       |
| -20.67                                                                                                       | Radius R <sub>1</sub> (mm):                       |
| 40-20                                                                                                        | Surface Quality:                                  |
| 5 J/cm <sup>2</sup> @ 532nm, 10ns                                                                            | Damage Threshold, By Design: <input type="text"/> |
| 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:                                        |

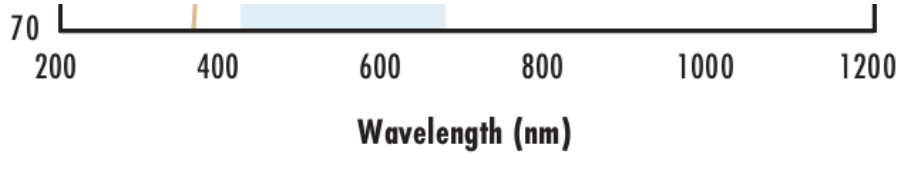
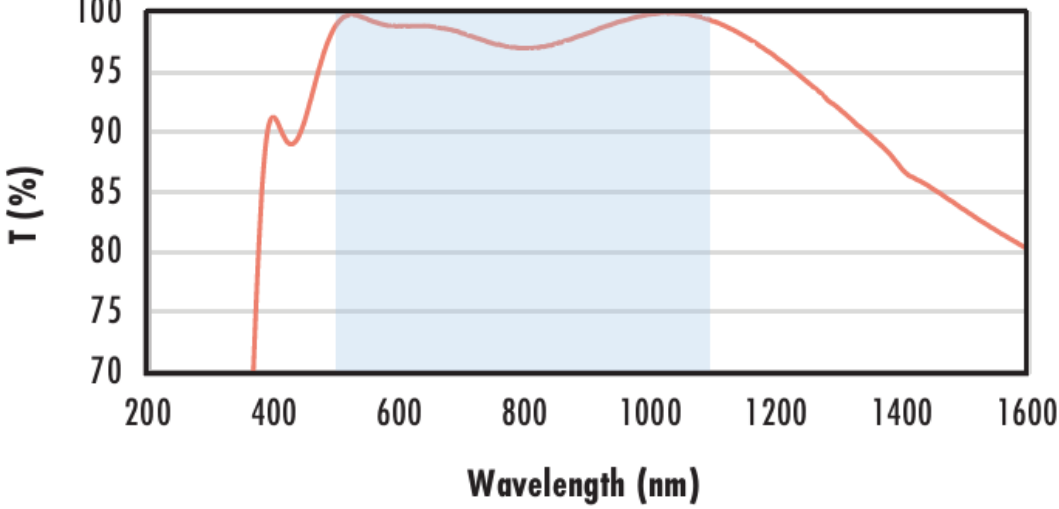
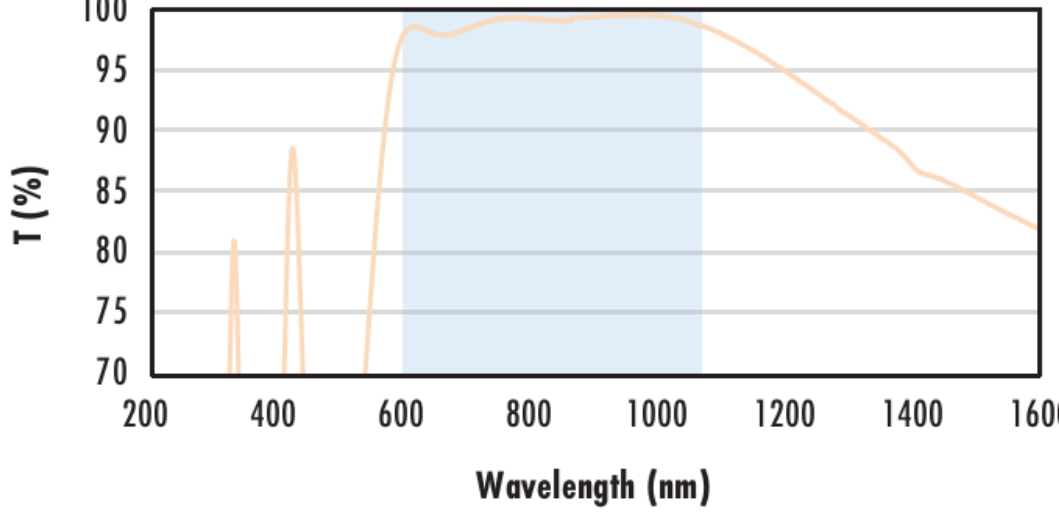
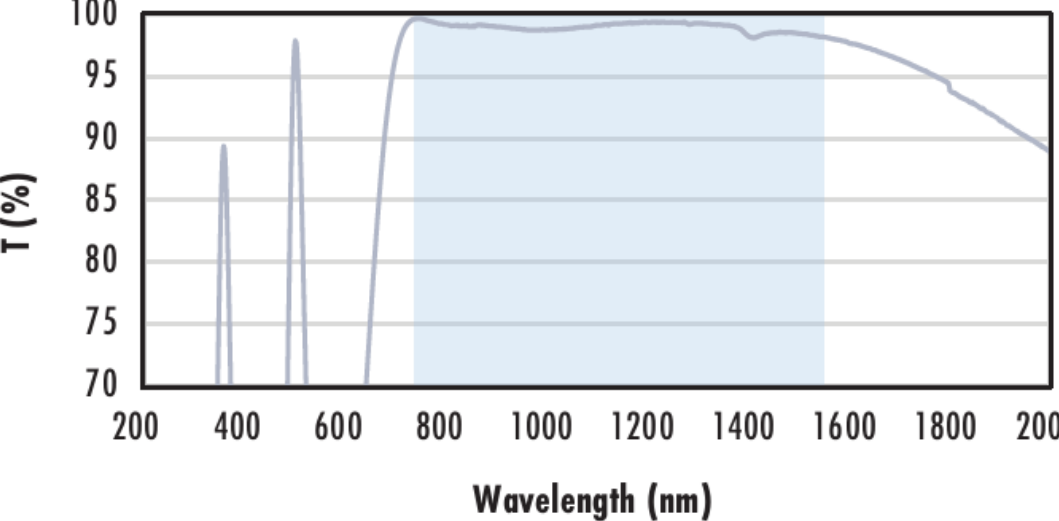
## PRODUCT DETAILS

- 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](#), [MgF<sub>2</sub>](#), [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](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), or with [NIR II](#) AR coating options.

## TECHNICAL INFORMATION

|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="262 112 1249 638"><h3>Uncoated N-BK7 Typical Transmission</h3></div>                       | <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 data-bbox="262 706 1249 1193"><h3>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</h3></div> | <p>Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (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\% @ 400 - 700\text{nm}</math> (N-BK7)</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 data-bbox="262 1228 1249 1825"><h3>N-BK7 with VIS-EXT Coating Typical Transmission</h3></div>       | <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\% @ 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 data-bbox="262 1869 1249 2442"><h3>N-BK7 with VIS-NIR Coating Typical Transmission</h3></div>       | <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\% @ 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 890 - 1000\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 data-bbox="262 2478 1249 2884"><h3>N-BK7 with VIS 0° Coating Typical Transmission</h3></div>        | <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>                                                                                                                   |

|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <div data-bbox="569 270 1037 365">N-BK7 with YAG-BBAR Coating<br/>Typical Transmission</div>    | <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>           |
| <div data-bbox="617 899 1008 994">N-BK7 with NIR I Coating<br/>Typical Transmission</div>     | <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>                                                                                                                     |
| <div data-bbox="606 1546 1016 1641">N-BK7 with NIR II Coating<br/>Typical Transmission</div>  | <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> |

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

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