

[See all 51 Products in Family](#)

TECHSPEC<sup>®</sup> 50mm Dia. x 75mm FL, YAG-BBAR Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock **#18-183** **5 In Stock**

-

1

+

₹24,056

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | ₹24,056 each                  |
| Qty 6-25       | ₹19,229 each                  |
| Qty 26-49      | ₹18,061 each                  |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

50.00 -0.025

Diameter (mm):

|                                                                                                              |                                  |
|--------------------------------------------------------------------------------------------------------------|----------------------------------|
| <1                                                                                                           | Centering (arcmin):              |
| 12.50 ±0.10                                                                                                  | Center Thickness CT (mm):        |
| 1.72                                                                                                         | Edge Thickness ET (mm):          |
| 49                                                                                                           | Clear Aperture CA (mm):          |
| Protective as needed                                                                                         | Bevel:                           |
| Optical Properties                                                                                           |                                  |
| 75.00 @ 587.6nm                                                                                              | Effective Focal Length EFL (mm): |
| 66.43                                                                                                        | Back Focal Length BFL (mm):      |
| YAG-BBAR (500-1100nm)                                                                                        | Coating:                         |
| 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:           |
| Fused Silica (Corning 7980)                                                                                  | Substrate: □                     |
| 40-20                                                                                                        | Surface Quality:                 |
| 3 Rings                                                                                                      | Power (P-V) @ 632.8nm:           |
| 0.5 Rings                                                                                                    | Irregularity (P-V) @ 632.8nm:    |
| ±1                                                                                                           | Focal Length Tolerance (%):      |
| 34.39                                                                                                        | Radius R <sub>1</sub> (mm):      |
| 1.5                                                                                                          | f/#:                             |
| 0.33                                                                                                         | Numerical Aperture NA:           |
| 500 - 1100                                                                                                   | Wavelength Range (nm):           |
| 5 J/cm <sup>2</sup> @ 532nm, 10ns                                                                            | Damage Threshold, By Design: □   |

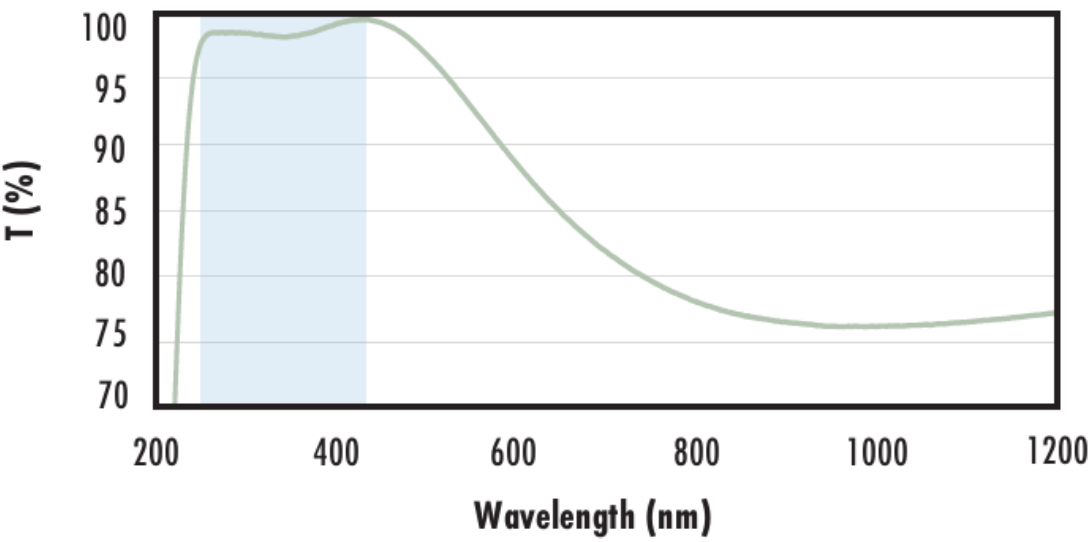
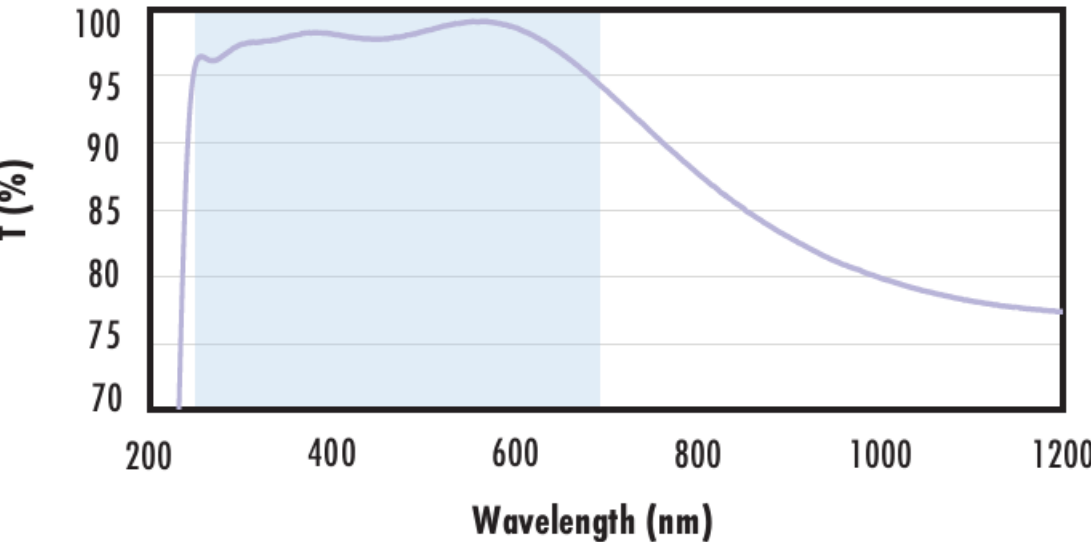
|                                     |                             |
|-------------------------------------|-----------------------------|
| Regulatory Compliance               |                             |
| Compliant                           | RoHS 2015:                  |
| View              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

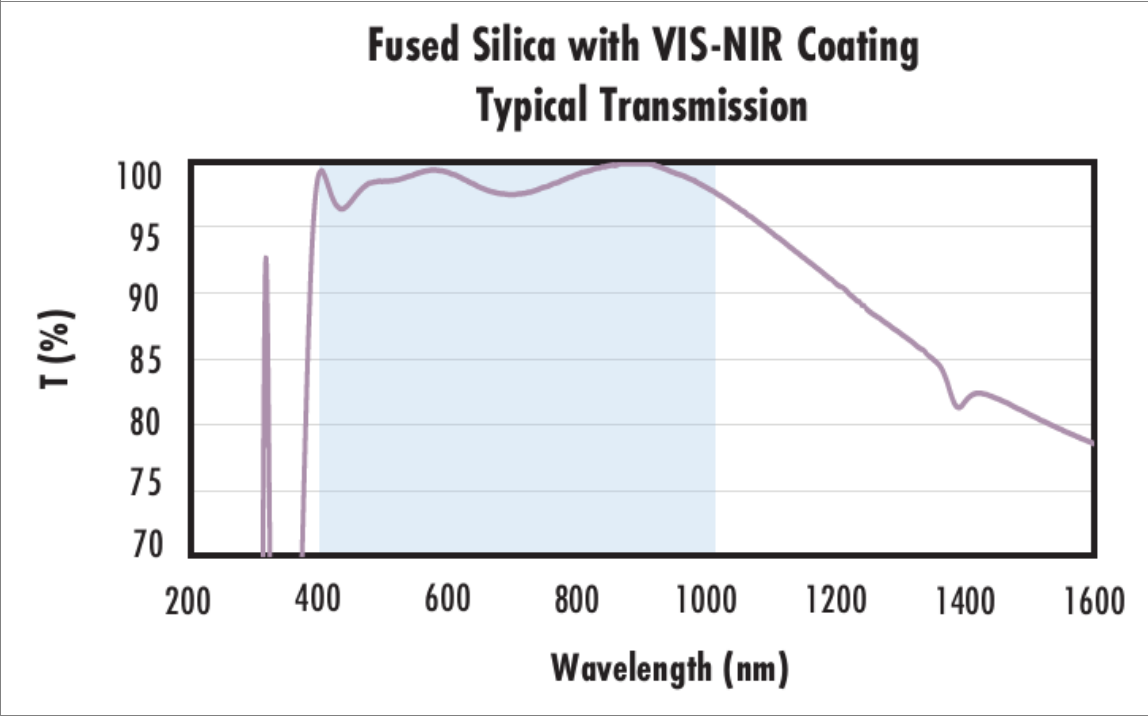
## Product Details

- AR Coated to Provide <1.0% Reflection per Surface for 500 - 1100nm
  - Precision Fused Silica Substrate
  - Various Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [NIR I](#), and [NIR II](#)
- TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses YAG-BBAR Coated feature precision specifications and a [variety of coating options](#) on a broadband substrate. Fused Silica is commonly used in applications from the Ultraviolet (UV) through the Near-Infrared (NIR). Its low index of refraction, low coefficient of thermal expansion, and low inclusion content make it ideal for laser applications and harsh environmental conditions. TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses YAG-BBAR Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are YAG-BBAR coated and feature less than 0.25% reflection at common Nd:YAG laser wavelengths of 532nm and 1064nm.

## Technical Information

| FUSED SILICA          |
|-----------------------|
| Uncoated Fused Silica |

|                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Typical Transmission</div></div>                                                | <div>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                                                                                                                                                                                                                                                                                          |
| <div><div>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</div></div> | <div>Typical transmission of a 3mm thick fused silica window with MgF2 (400-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                            |
| <div><div>Fused Silica with UV-AR Coating<br/>Typical Transmission</div></div>          | <div>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{abs} \leq 1.0\% @ 250 - 425\text{nm}</math><br/><math>R_{avg} \leq 0.75\% @ 250 - 425\text{nm}</math><br/><math>R_{avg} \leq 0.5\% @ 370 - 420\text{nm}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div> |
| <div><div>Fused Silica with UV-VIS Coating<br/>Typical Transmission</div></div>         | <div>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{abs} \leq 1.0\% @ 350 - 450\text{nm}</math><br/><math>R_{avg} \leq 1.5\% @ 250 - 700\text{nm}</math></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>                                                          |
| <div><div>Fused Silica with VIS-EXT Coating<br/>Typical Transmission</div></div>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                      | <p>Typical transmission of a 3mm thick fused silica 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>                                                                                                                  |
| <p><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>    | <p>Typical transmission of a 3mm thick fused silica 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> |
| <p><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>    | <p>Typical transmission of a 3mm thick fused silica 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>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick fused silica 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>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></p>     | <p>Typical transmission of a 3mm thick fused silica 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>                                                                                                                                                                                                                                                                                                            |



## 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](#).