

TECHSPEC<sup>®</sup> 50mm Dia. x 75mm FL VIS 0° Coated, UV Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock **#67-233** 20+ In Stock

-

1

+

₹23,666

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | ₹23,666 each                  |
| Qty 6-25       | ₹18,918 each                  |
| Qty 26-49      | ₹17,750 each                  |
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General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

50.00 +0.0/-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):      |
| VIS 0° (425-675nm)                   | Coating:                         |
| R <sub>avg</sub> ≤0.4% @ 425 - 675nm | Coating Specification:           |
| Fused Silica (Corning 7980)          | Substrate: □                     |
| 40-20                                | Surface Quality:                 |
| 1.5λ                                 | Power (P-V) @ 632.8nm:           |
| λ/4                                  | 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:           |
| 425 - 675                            | Wavelength Range (nm):           |
| 5 J/cm <sup>2</sup> @ 532nm, 10ns    | Damage Threshold, Reference: □   |

|                                     |                             |
|-------------------------------------|-----------------------------|
| 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 <0.4% Reflection per Surface for 425 - 675nm
  - Precision Fused Silica Substrate
  - Various Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)
- TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses VIS 0° 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 VIS 0° Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are VIS 0° coated to increase their coating performance in the visible region and are designed for 0 degrees angle of incidence.

## Technical Information



UV FS Transmission Curve



| FUSED SILICA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div><h3>Uncoated Fused Silica<br/>Typical Transmission</h3><p>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</p><p><a href="#">Click Here to Download Data</a></p></div>                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <div><h3>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</h3><p>Typical transmission of a 3mm thick fused silica 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>                                                                                       |  |
| <div><h3>Fused Silica with UV-AR Coating<br/>Typical Transmission</h3><p>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) 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 1.0\% @ 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></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>20040060080010001200</div> <div>Wavelength (nm)</div>                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <div>Fused Silica with UV-VIS Coating</div> <div>Typical Transmission</div> <div></div> <div>20040060080010001200</div> <div>Wavelength (nm)</div>            | <p>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\%</math> @ 350 - 450nm<br/><math>R_{avg} \leq 1.5\%</math> @ 250 - 700nm</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>Fused Silica with VIS-EXT Coating</div> <div>Typical Transmission</div> <div></div> <div>20040060080010001200</div> <div>Wavelength (nm)</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\%</math> @ 350 - 700nm</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>Fused Silica with VIS-NIR Coating</div> <div>Typical Transmission</div> <div></div> <div>2004006008001000120014001600</div> <div>Wavelength (nm)</div> | <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\%</math> @ 880nm<br/><math>R_{avg} \leq 1.25\%</math> @ 400 - 870nm<br/><math>R_{avg} \leq 1.25\%</math> @ 890 - 1000nm</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>Fused Silica with VIS 0° Coating</div> <div>Typical Transmission</div> <div></div> <div>20040060080010001200</div> <div>Wavelength (nm)</div>          | <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\%</math> @ 425 - 675nm</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>                                                                                                     |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div><div>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</div><div></div></div></div> | <div><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><div><div><math>R_{abs} \leq 0.25\%</math> @ 532nm</div><div><math>R_{abs} \leq 0.25\%</math> @ 1064nm</div><div><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</div></div><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><div><div>Fused Silica with NIR I Coating</div><div>Typical Transmission</div><div></div></div></div>   | <div><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><div><div><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</div></div><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><div><div>Fused Silica with NIR II Coating</div><div>Typical Transmission</div><div></div></div></div> | <div><p>Typical transmission of a 3mm thick fused silica 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><div><div><math>R_{abs} \leq 1.5\%</math> @ 750 - 800nm</div><div><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm</div><div><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</div></div><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> |

Coating Curves

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](#).

Compatible Mounts

