

TECHSPEC<sup>®</sup> 9.0mm Dia. x -27 FL, Uncoated, UV Plano-Concave Lens



UV Fused Silica Plano-Concave (PCV) Lenses



Stock **#45-702** 20+ In Stock

[Other Coating Options](#)

-

1

+

₹9,108

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | ₹9,108 each                   |
| Qty 6-25       | ₹7,318 each                   |
| Qty 26-49      | ₹6,851 each                   |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

| General                    |       |
|----------------------------|-------|
| Plano-Concave Lens         | Type: |
| Max. Flat Annulus is 0.3mm | Note: |

| Physical & Mechanical Properties |                                  |
|----------------------------------|----------------------------------|
| 9.00 +0.0/-0.025                 | Diameter (mm):                   |
| 2.00                             | Center Thickness CT (mm):        |
|                                  |                                  |
| ±0.05                            | Center Thickness Tolerance (mm): |
|                                  |                                  |
| <1                               | Centering (arcmin):              |
|                                  |                                  |
| 8.1                              | Clear Aperture CA (mm):          |
|                                  |                                  |
| 2.73                             | Edge Thickness ET (mm):          |

| Optical Properties          |                                             |
|-----------------------------|---------------------------------------------|
| -27.00                      | Effective Focal Length EFL (mm):            |
|                             |                                             |
| Fused Silica (Corning 7980) | Substrate: <input type="checkbox"/>         |
|                             |                                             |
| 3.00                        | f/#:                                        |
|                             |                                             |
| 0.17                        | Numerical Aperture NA:                      |
|                             |                                             |
| Uncoated                    | Coating:                                    |
|                             |                                             |
| 200 - 2200                  | Wavelength Range (nm):                      |
|                             |                                             |
| -28.42                      | Back Focal Length BFL (mm):                 |
|                             |                                             |
| 587.6                       | Focal Length Specification Wavelength (nm): |
|                             |                                             |
| ±1                          | Focal Length Tolerance (%):                 |
|                             |                                             |
| -12.40                      | Radius R <sub>1</sub> (mm):                 |
|                             |                                             |
| 40-20                       | Surface Quality:                            |
|                             |                                             |
| 1.5λ                        | Power (P-V) @ 632.8nm:                      |
|                             |                                             |
| λ/4                         | Irregularity (P-V) @ 632.8nm:               |

| Regulatory Compliance               |                             |
|-------------------------------------|-----------------------------|
| Compliant                           | RoHS 2015:                  |
|                                     |                             |
| Compliant                           | Reach 223:                  |
|                                     |                             |
| View                                | Certificate of Conformance: |
|                                     |                             |
| Japan                               | Country of Origin:          |
|                                     |                             |
| Edmund Optics India Private Limited | Imported By:                |

## 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](#).

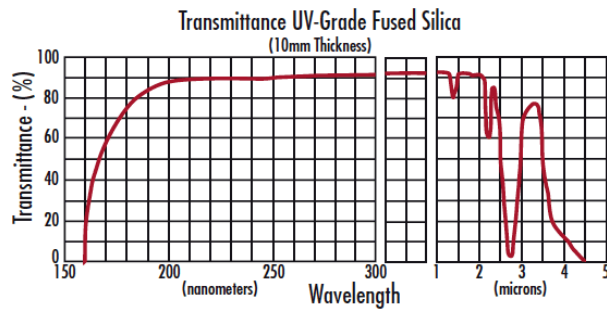
## Product Details

- Negative Focal Lengths for Beam Expansion or Light Projection Applications
- Wavelength Range of 200 - 2200nm
- Popular UV-AR Coating Option Available

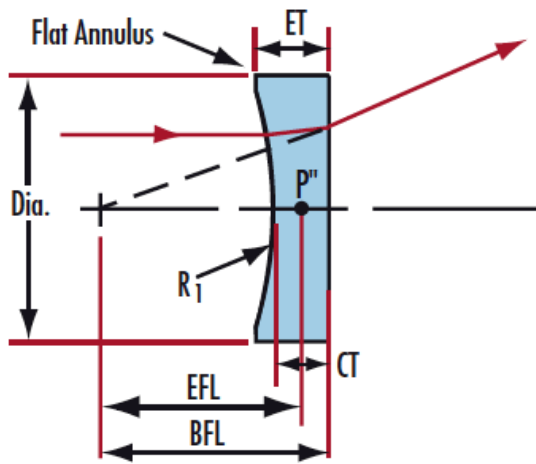
TECHSPEC® UV Fused Silica Plano-Concave (PCV) Lenses are high performance UV optic elements, manufactured utilizing state of the art CNC equipment. Zygo's GPI-XP Interferometer is used to assure the surface accuracy and performance of these UV optics. UV Grade lenses are precision manufactured using research-grade synthetic fused silica. In addition to providing excellent transmission characteristics and higher operating temperatures, synthetic fused silica also exhibits an exceptional inclusion specification and chemical purity. TECHSPEC® UV Fused Silica Plano-Concave (PCV) Lenses are an ideal choice for many laser and imaging applications, particularly those

involving ultraviolet wavelengths. A broadband anti-reflection coating is available for optimized throughput in the ultraviolet spectrum.

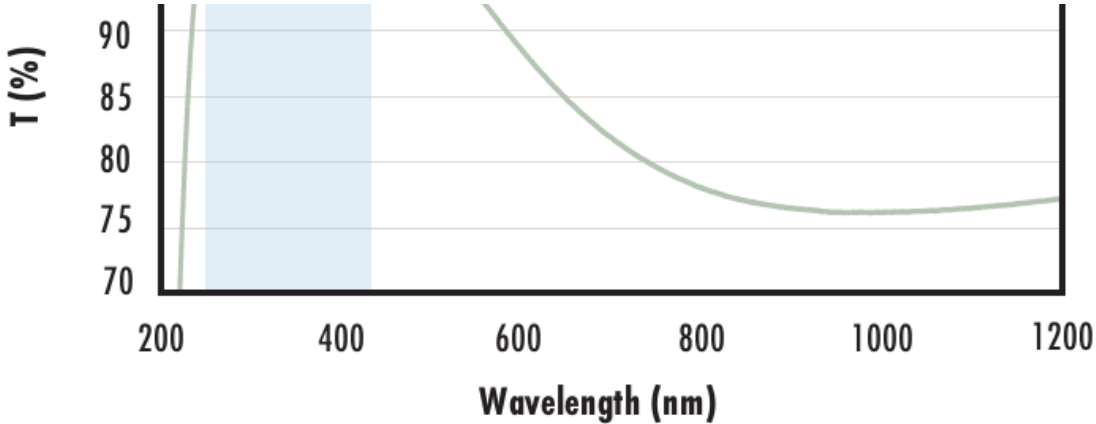
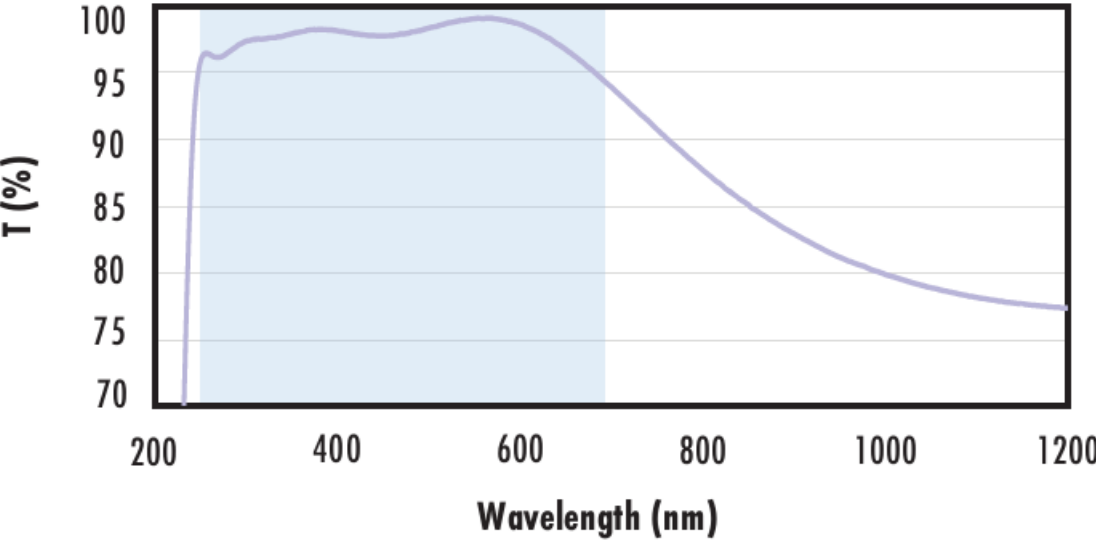
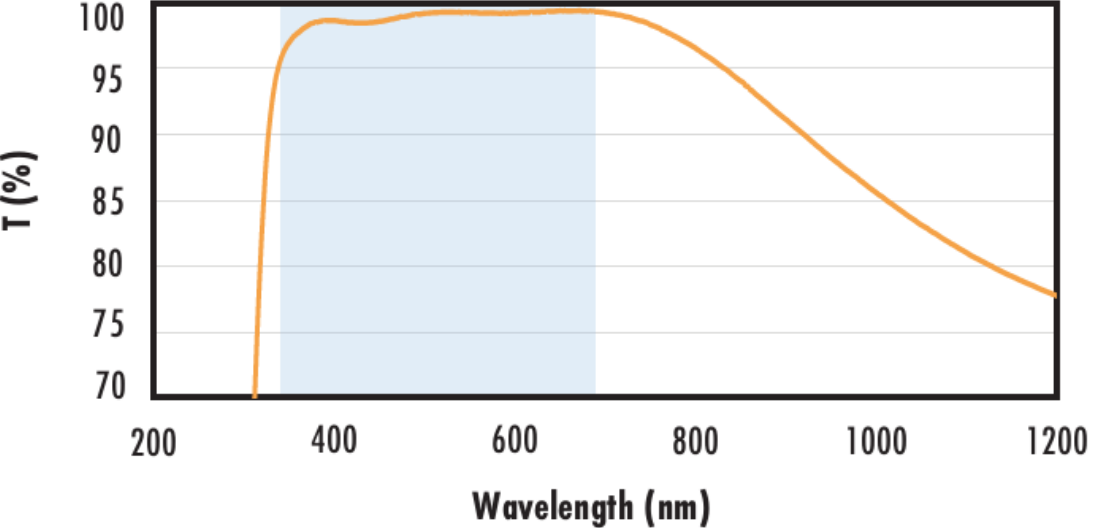
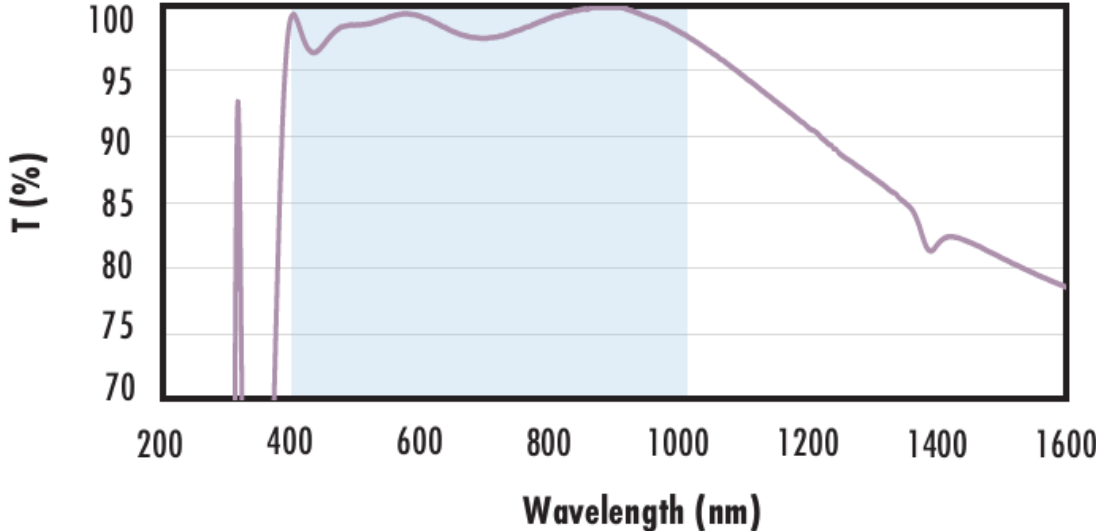
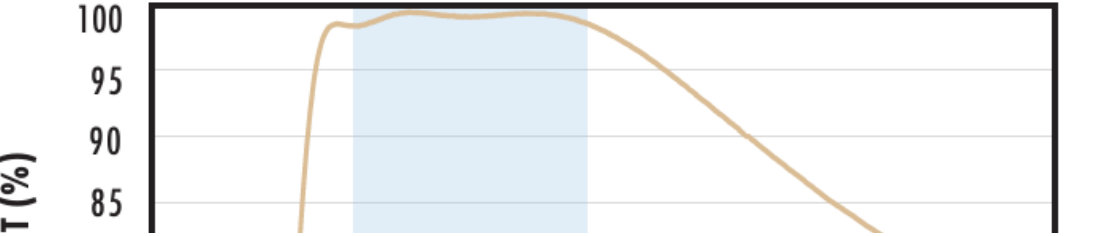
## Technical Information

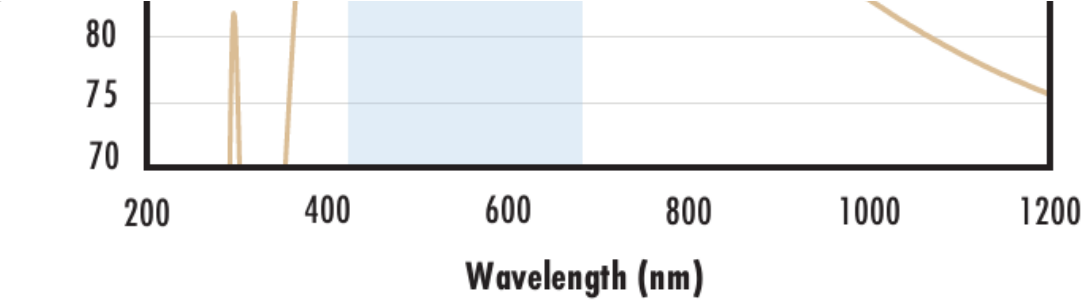
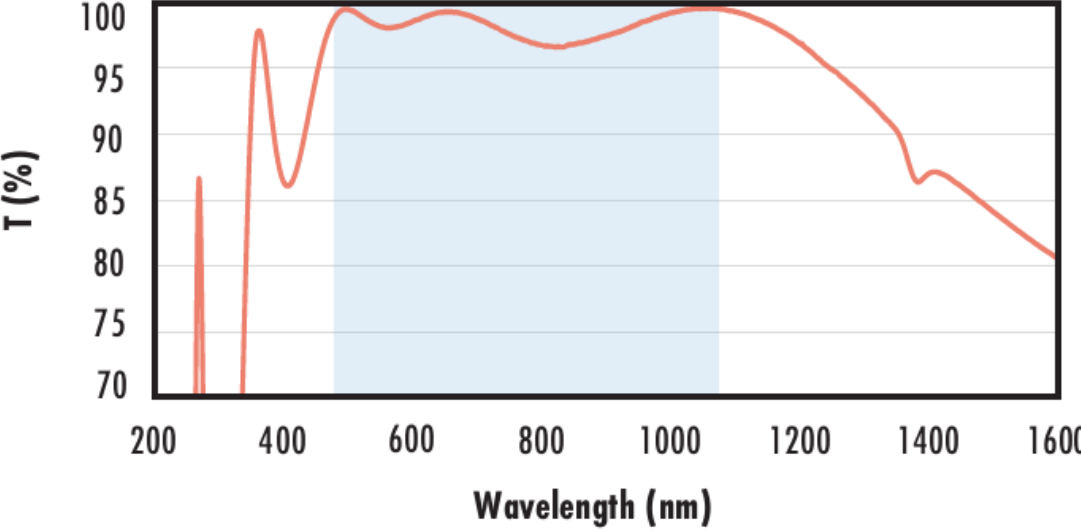
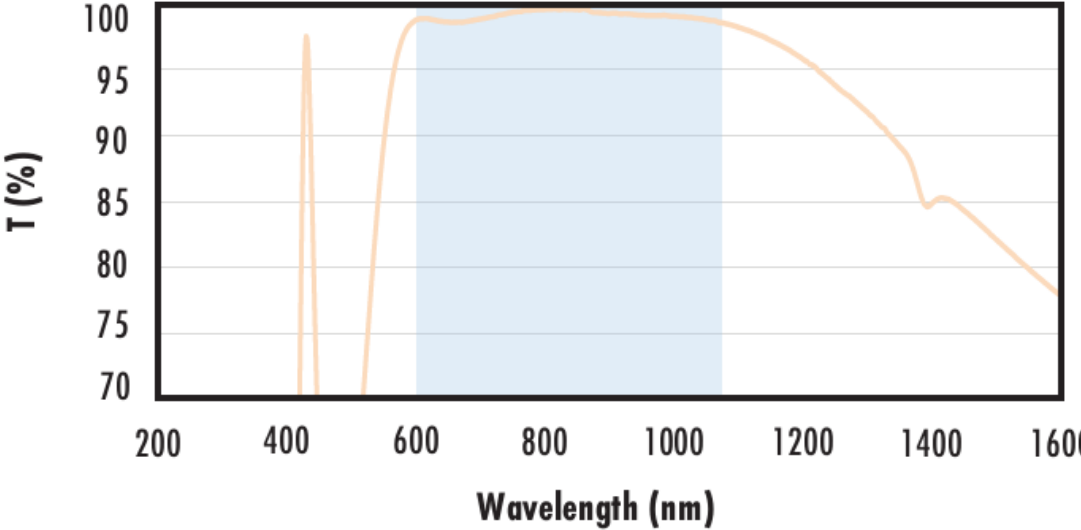
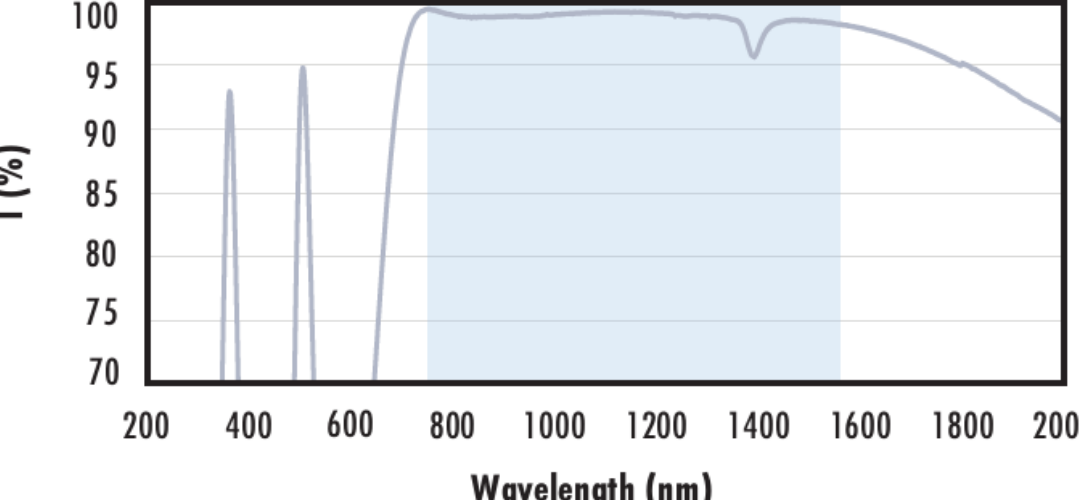


UV FS Transmission Curve



|                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>FUSED SILICA</b></p>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>Uncoated Fused Silica<br/>Typical Transmission</b></p>                     | <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>                                                                                                                                                                                                                                                                              |
| <p><b>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</b></p> | <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 (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> |
| <p><b>Fused Silica with UV-AR Coating<br/>Typical Transmission</b></p>           | <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>                                                                                                          |
| <p><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>    | <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\% @ 350 - 450\text{nm}</math><br/><math>R_{avg} \leq 1.5\% @ 250 - 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-EXT Coating</b><br/><b>Typical Transmission</b></p>  | <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>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p data-bbox="548 394 1108 498"><b>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1341 552 1839 596">Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1331 614 1850 658">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 676 1713 750"><p><math>R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}</math></p><p><math>R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}</math></p><p><math>R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}</math></p></div> <p data-bbox="1341 762 1839 807">Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                   |
| <p data-bbox="594 1071 1066 1175"><b>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1325 1252 1858 1297">Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1331 1314 1850 1359">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 1377 1713 1400"><p><math>R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}</math></p></div> <p data-bbox="1341 1415 1839 1460">Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                           |
| <p data-bbox="581 1751 1075 1855"><b>Fused Silica with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1325 1890 1858 1935">Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1331 1952 1850 1997">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 2015 1713 2089"><p><math>R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}</math></p><p><math>R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}</math></p><p><math>R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}</math></p></div> <p data-bbox="1341 2125 1839 2169">Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |

Compatible Mounts