

TECHSPEC<sup>®</sup> 6.0mm Dia. x -12 FL, UV-AR Coated, UV Plano-Concave Lens



UV Fused Silica Plano-Concave (PCV) Lenses



Stock **#46-309** **20+ In Stock**

☐ [Other Coating Options](#)

-

1

+

S\$203<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | <b>S\$203.00</b> each         |
| Qty 6-25       | <b>S\$162.40</b> each         |
| Qty 26-49      | <b>S\$151.20</b> each         |
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General

Plano-Concave Lens

Type:

Max. Flat Annulus is 0.3mm

Note:

| Physical & Mechanical Properties                                                                                      |                                                       |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 6.00 +0.0/-0.025                                                                                                      | Diameter (mm):                                        |
| 2.00                                                                                                                  | Center Thickness CT (mm):                             |
| ±0.05                                                                                                                 | Center Thickness Tolerance (mm):                      |
| <1                                                                                                                    | Centering (arcmin):                                   |
| 5.4                                                                                                                   | Clear Aperture CA (mm):                               |
| 2.71                                                                                                                  | Edge Thickness ET (mm):                               |
| Optical Properties                                                                                                    |                                                       |
| -12.00                                                                                                                | Effective Focal Length EFL (mm):                      |
| Fused Silica (Corning 7980)                                                                                           | Substrate: <input type="checkbox"/>                   |
| 2.00                                                                                                                  | f#:                                                   |
| 0.25                                                                                                                  | Numerical Aperture NA:                                |
| UV-AR (250-425nm)                                                                                                     | Coating:                                              |
| 250 - 425                                                                                                             | Wavelength Range (nm):                                |
| -13.38                                                                                                                | Back Focal Length BFL (mm):                           |
| R <sub>abs</sub> ≤1.0% @ 250 - 425nm<br>R <sub>avg</sub> ≤0.75% @ 250 - 425nm<br>R <sub>avg</sub> ≤0.5% @ 370 - 420nm | Coating Specification:                                |
| 587.6                                                                                                                 | Focal Length Specification Wavelength (nm):           |
| ±1                                                                                                                    | Focal Length Tolerance (%):                           |
| -5.50                                                                                                                 | Radius R <sub>1</sub> (mm):                           |
| 40-20                                                                                                                 | Surface Quality:                                      |
| 3 J/cm² @ 355nm, 10ns                                                                                                 | Damage Threshold, Reference: <input type="checkbox"/> |
| 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
  - 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



| FUSED SILICA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <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}</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>                                                                                         |  |
| <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 data-bbox="573 278 1083 385"><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1329 439 1854 489">Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p data-bbox="1329 501 1854 552">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1478 563 1705 614"><math>R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}</math><math>R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}</math></div> <p data-bbox="1329 649 1854 700">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 712 1705 736"><a href="#">Click Here to Download Data</a></p>                                                                        |
| <p data-bbox="569 958 1087 1065"><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1142 1854 1193">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1205 1854 1255">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1478 1267 1705 1291"><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <p data-bbox="1329 1302 1854 1353">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1365 1705 1389"><a href="#">Click Here to Download Data</a></p>                                                                                                                          |
| <p data-bbox="573 1638 1083 1745"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1780 1854 1831">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1843 1854 1893">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 1905 1715 1979"><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></div> <p data-bbox="1329 2015 1854 2065">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 2077 1705 2101"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="569 2309 1087 2415"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 2487 1854 2537">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2549 1854 2599">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1478 2611 1705 2635"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2647 1854 2697">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 2709 1705 2733"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |

