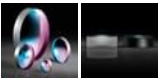


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TECHSPEC<sup>®</sup> 12mm Dia. x -30mm FL, UV-AR Coated, UV DCV Lens



UV Fused Silica Plano-Concave (PCV) Lenses



Stock **#48-059 5 In Stock**

☐ [Other Coating Options](#)

-

1

+

A\$256<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | A\$256.00 each                |
| Qty 6-25       | A\$204.80 each                |
| Qty 26-49      | A\$193.60 each                |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

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

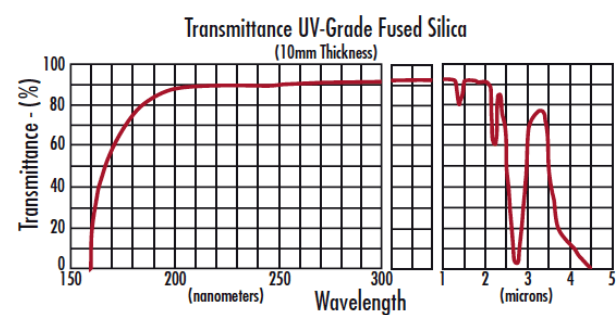
| Physical & Mechanical Properties                                                                                      |                                                       |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 12.00 +0.0/-0.025                                                                                                     | Diameter (mm):                                        |
| 2.00                                                                                                                  | Center Thickness CT (mm):                             |
| ±0.05                                                                                                                 | Center Thickness Tolerance (mm):                      |
| <1                                                                                                                    | Centering (arcmin):                                   |
| 11.0                                                                                                                  | Clear Aperture CA (mm):                               |
| 3.18                                                                                                                  | Edge Thickness ET (mm):                               |
| Optical Properties                                                                                                    |                                                       |
| -30.00                                                                                                                | Effective Focal Length EFL (mm):                      |
| Fused Silica (Corning 7980)                                                                                           | Substrate: <input type="checkbox"/>                   |
| 2.5                                                                                                                   | f/#:                                                  |
| 0.20                                                                                                                  | Numerical Aperture NA:                                |
| UV-AR (250-425nm)                                                                                                     | Coating:                                              |
| 250 - 425                                                                                                             | Wavelength Range (nm):                                |
| -30.68                                                                                                                | 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):           |
| ±2                                                                                                                    | Focal Length Tolerance (%):                           |
| -27.81                                                                                                                | Radius R <sub>1</sub> =R <sub>2</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

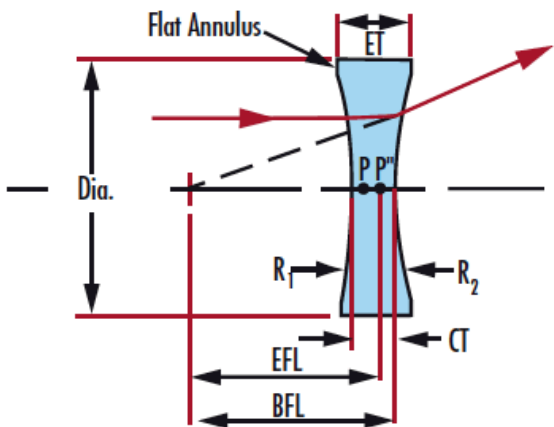
- Negative Focal Lengths for Beam Expansion or Light Projection Applications
- Wavelength Range of 200 - 2200nm
- Popular UV-AR Coating Option Available

TECHSPEC® UV Fused Silica Double-Concave (DCV) Lenses are manufactured utilizing state-of-the-art CNC equipment. Zygo’s GPI-XP Interferometer is used to ensure the surface accuracy and performance of these optics. UV Grade lenses are precision manufactured using research-grade synthetic fused silica. TECHSPEC® UV Fused Silica Double-Concave (DCV) Lenses, in addition to providing excellent transmission characteristics and higher operating temperatures, synthetic fused silica lenses also exhibit exceptional inclusion specification and chemical purity. These lenses make a superior 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.

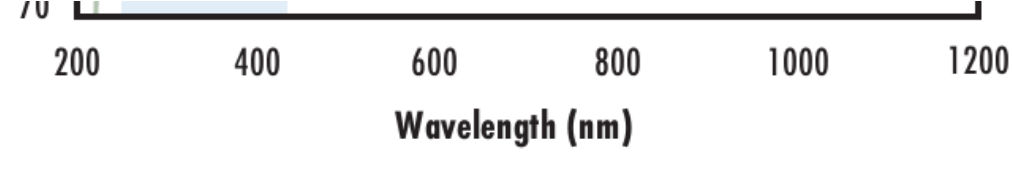
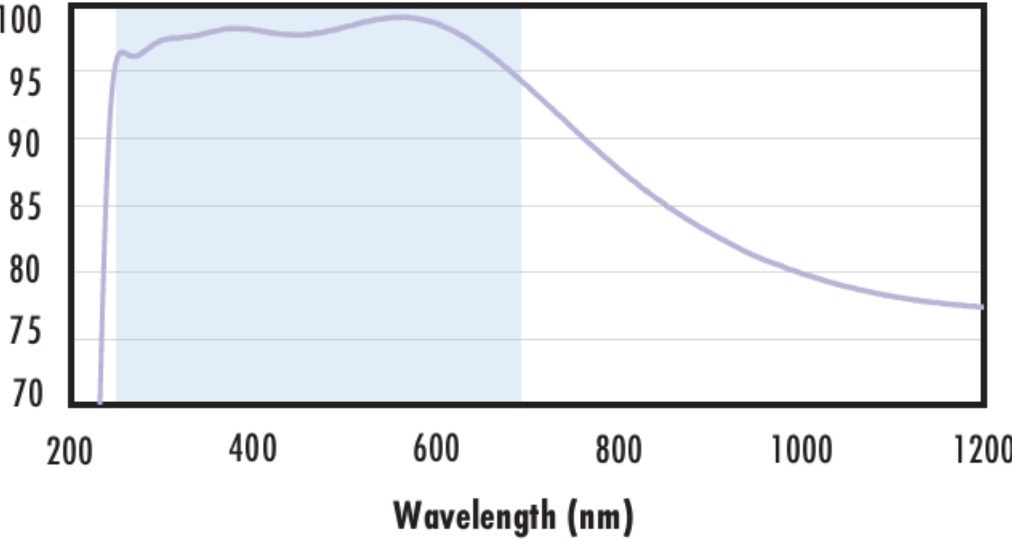
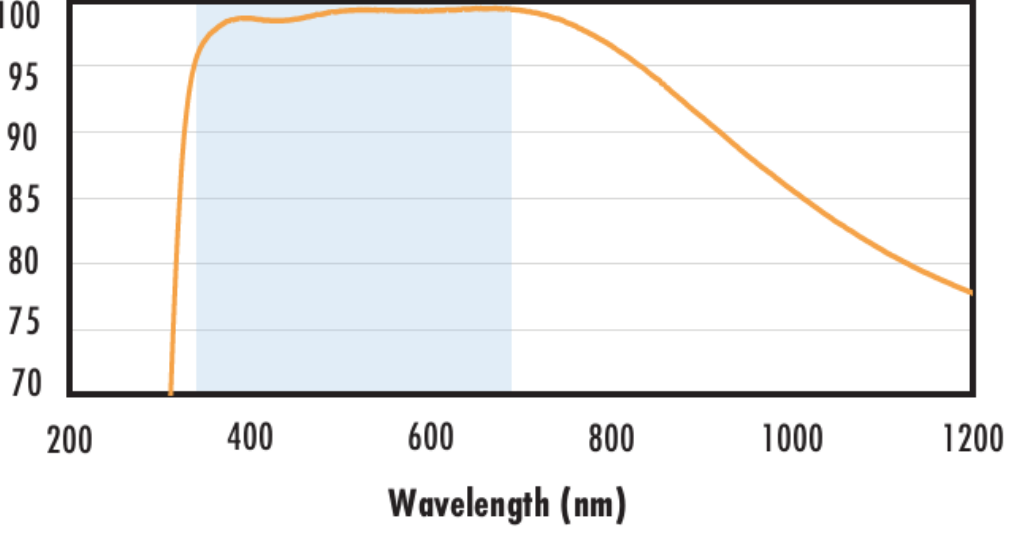
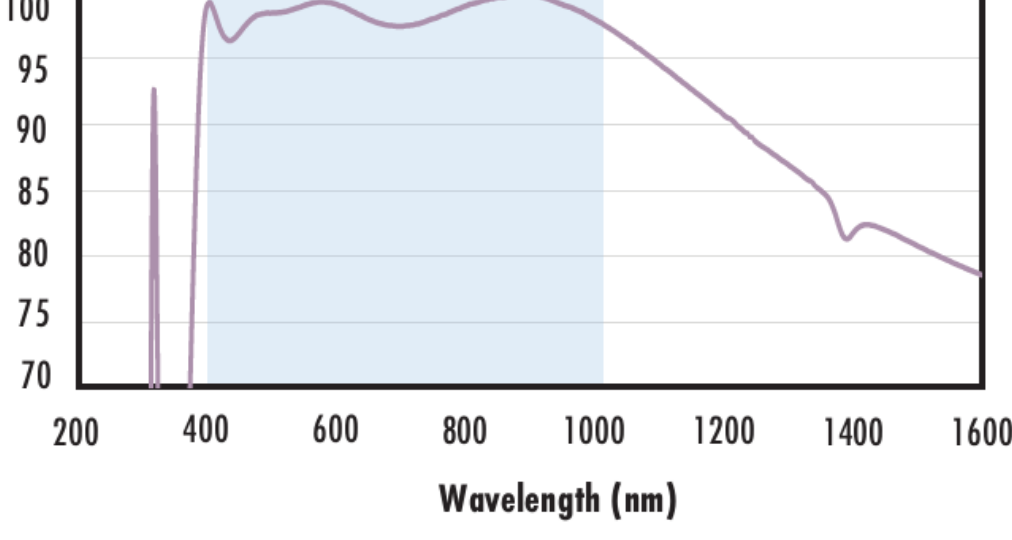
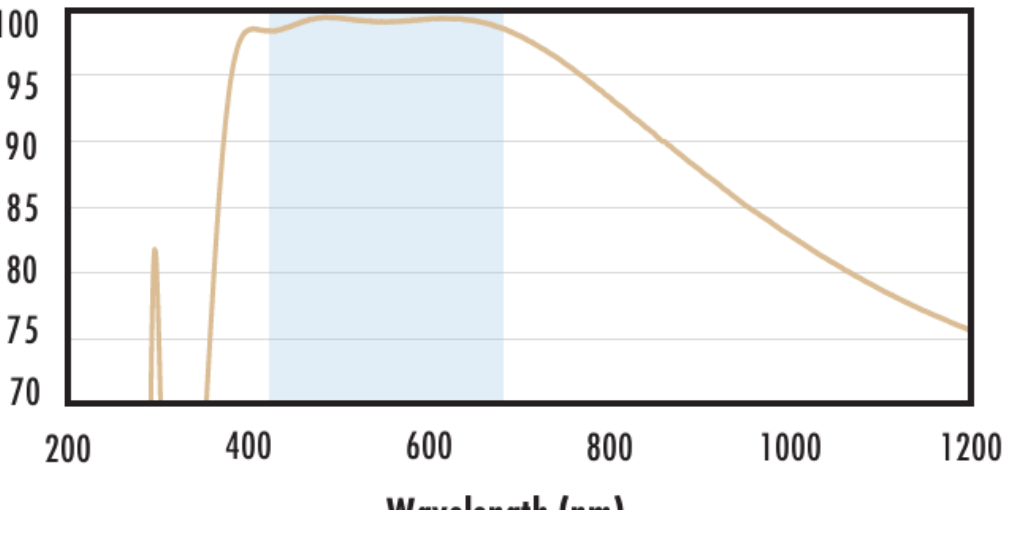
## Technical Information



UV FS Transmission Curve



| FUSED SILICA                                                                                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div> <div>Uncoated Fused Silica</div> <div>Typical Transmission</div> </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> <div>Fused Silica with MgF<sub>2</sub> Coating</div> <div>Typical Transmission</div> </div> |  | <div> <div>Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div> <div>R<sub>avg</sub> ≤ 1.75% @ 400 - 700nm (N-BK7)</div> </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> <div>Fused Silica with UV-AR Coating</div> <div>Typical Transmission</div> </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> <div>R<sub>abs</sub> ≤ 1.0% @ 250 - 425nm</div> <div>R<sub>avg</sub> ≤ 0.75% @ 250 - 425nm</div> <div>R<sub>avg</sub> ≤ 0.5% @ 370 - 420nm</div> </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> |

|                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p data-bbox="573 261 1085 371"><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1329 424 1854 474">Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p data-bbox="1329 486 1854 537">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 549 1707 599"><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 635 1854 685">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 697 1707 718"><a href="#">Click Here to Download Data</a></p>                                                                        |
| <p data-bbox="567 943 1079 1053"><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1127 1854 1178">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1190 1854 1240">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1252 1707 1276"><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <p data-bbox="1329 1288 1854 1338">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 1350 1707 1374"><a href="#">Click Here to Download Data</a></p>                                                                                                                          |
| <p data-bbox="573 1623 1085 1733"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1765 1854 1816">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1828 1854 1878">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1465 1890 1717 1961"><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 1997 1854 2047">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2059 1707 2083"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="573 2288 1085 2398"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 2472 1854 2522">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2534 1854 2585">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 2597 1707 2620"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2632 1854 2683">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2694 1707 2718"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |

