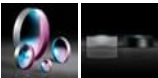


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TECHSPEC<sup>®</sup> 12mm Dia. x -30mm FL, UV-AR Coated, UV DCV Lens



UV Fused Silica Plano-Concave (PCV) Lenses



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

☐ [Other Coating Options](#)

-

1

+

£128<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | £128.00 each                  |
| Qty 6-25       | £102.40 each                  |
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 Prices shown are exclusive of VAT/local taxes

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:                         |

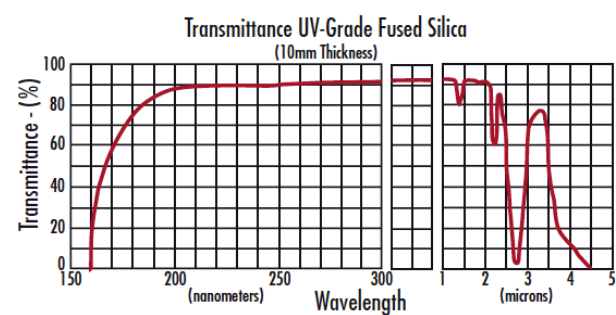
| Regulatory Compliance |                             |
|-----------------------|-----------------------------|
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 235:                  |

## Product Details

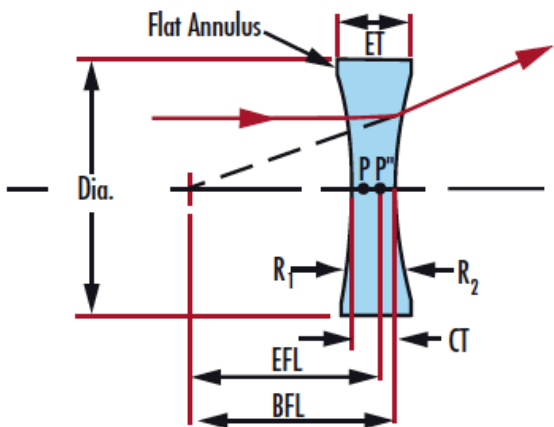
- Negative Focal Lengths for Beam Expansion or Light Projection Applications
- Wavelength Range of 200 - 2200nm
- Popular UV-AR Coating Option Available

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.

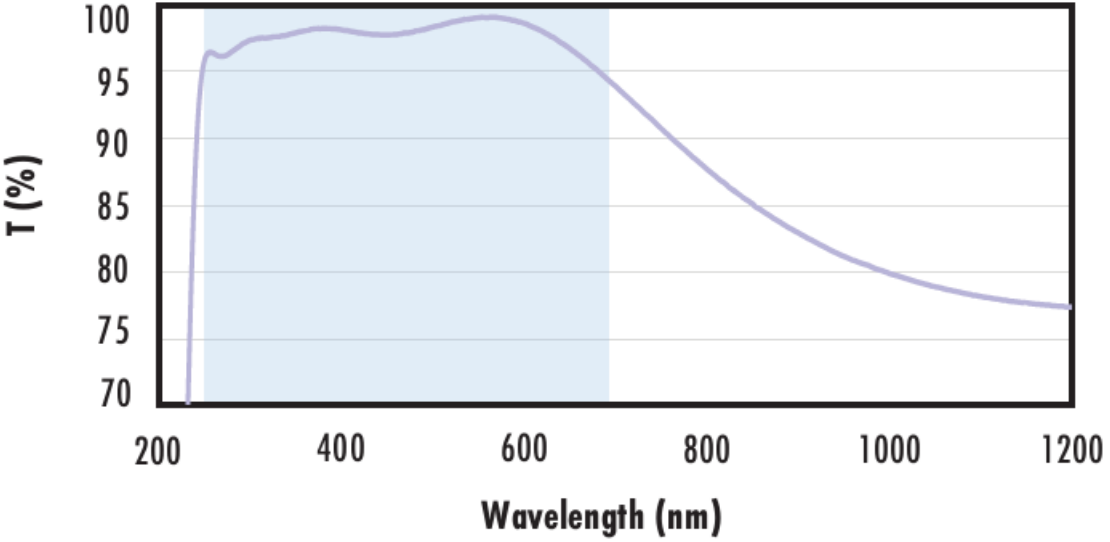
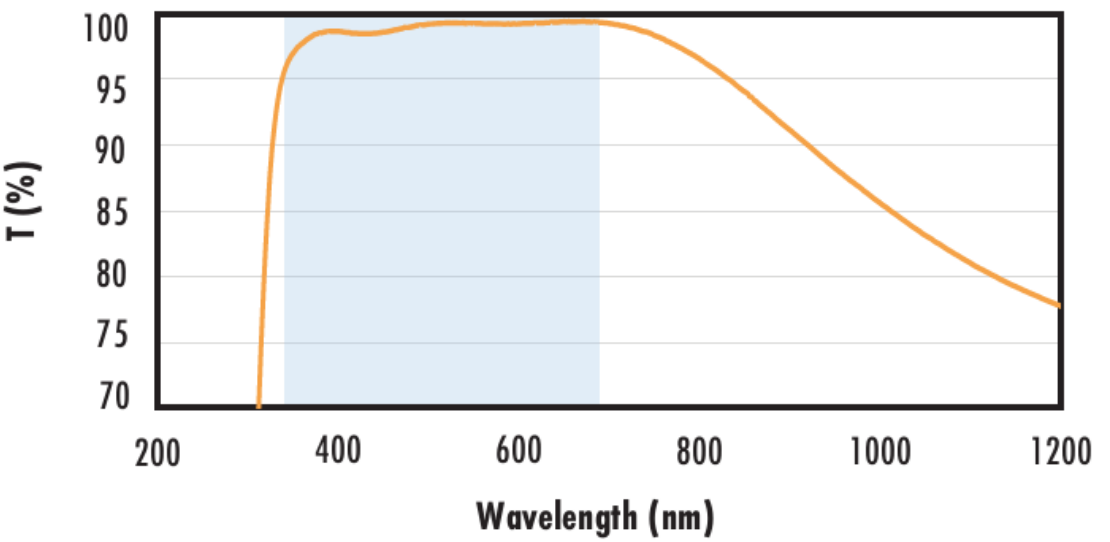
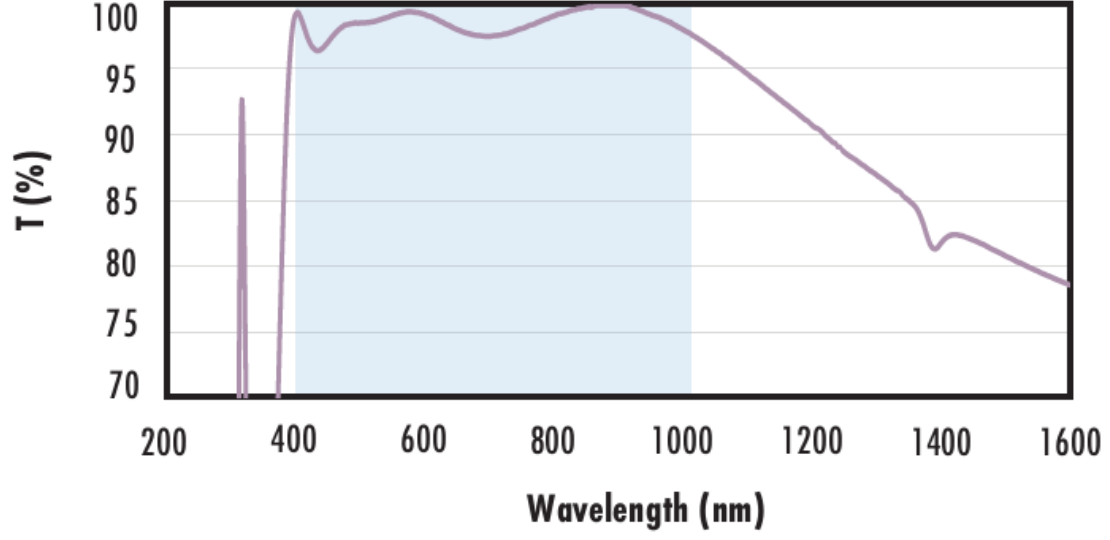
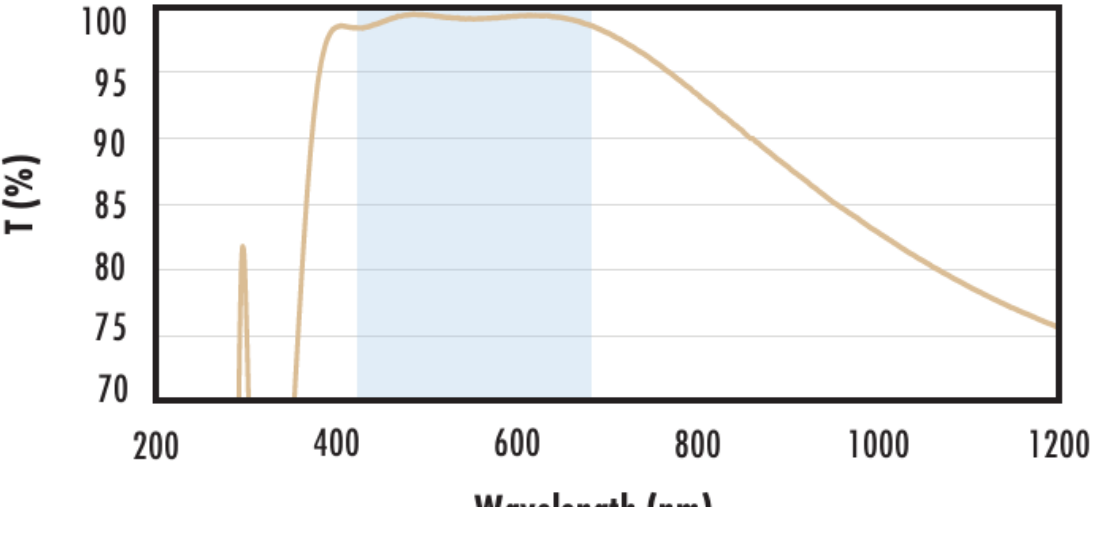
## Technical Information



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>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> <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>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 data-bbox="573 261 1083 371"><h3>Fused Silica with UV-VIS Coating</h3><h4>Typical Transmission</h4></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 data-bbox="567 943 1079 1053"><h3>Fused Silica with VIS-EXT Coating</h3><h4>Typical Transmission</h4></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 data-bbox="573 1626 1083 1736"><h3>Fused Silica with VIS-NIR Coating</h3><h4>Typical Transmission</h4></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 data-bbox="573 2291 1083 2401"><h3>Fused Silica with VIS 0° Coating</h3><h4>Typical Transmission</h4></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>                                                                                                     |

