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TECHSPEC<sup>®</sup> 25mm Dia. x 50mm FL, VIS-NIR Coated, UV Double-Convex Lens



UV Fused Silica Double-Convex (DCX) Lenses



Stock **#63-838** 7 In Stock

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-

1

+

£136<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | £136.00 each                  |
| Qty 6-25       | £108.80 each                  |
| Qty 26-49      | £102.40 each                  |
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Double-Convex Lens

Physical & Mechanical Properties

|                                                                                                                    |                                                       |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 25.00 +0.0/-0.025                                                                                                  | Diameter (mm):                                        |
| <1                                                                                                                 | Centering (arcmin):                                   |
| Protective as needed                                                                                               | Bevel:                                                |
| 5.66 ±0.10                                                                                                         | Center Thickness CT (mm):                             |
| 2.11                                                                                                               | Edge Thickness ET (mm):                               |
| 24.00                                                                                                              | Clear Aperture CA (mm):                               |
| Optical Properties                                                                                                 |                                                       |
| 48.02                                                                                                              | Back Focal Length BFL (mm):                           |
| 50.00                                                                                                              | Effective Focal Length EFL (mm):                      |
| VIS-NIR (400-1000nm)                                                                                               | Coating:                                              |
| R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm | Coating Specification:                                |
| Fused Silica (Corning 7980)                                                                                        | Substrate: <input type="checkbox"/>                   |
| 40-20                                                                                                              | Surface Quality:                                      |
| 1.5λ                                                                                                               | Power (P-V) @ 632.8nm:                                |
| λ/4                                                                                                                | Irregularity (P-V) @ 632.8nm:                         |
| 44.94                                                                                                              | Radius R <sub>1</sub> =R <sub>2</sub> (mm):           |
| 2.00                                                                                                               | f/#:                                                  |
| 587.6                                                                                                              | Focal Length Specification Wavelength (nm):           |
| ±1                                                                                                                 | Focal Length Tolerance (%):                           |
| 0.25                                                                                                               | Numerical Aperture NA:                                |
| 400 - 1000                                                                                                         | Wavelength Range (nm):                                |
| 5 J/cm² @ 532nm, 10ns                                                                                              | Damage Threshold, Reference: <input type="checkbox"/> |
| Regulatory Compliance                                                                                              |                                                       |
| Compliant                                                                                                          | RoHS 2015:                                            |
| View                                                                                                               | Certificate of Conformance:                           |
| Compliant                                                                                                          | Reach 235:                                            |

## Product Details

- Ideal for Imaging Applications
- Mnimize Aberrations Including Spherical and Coma
- Precision Fused Silica Substrate

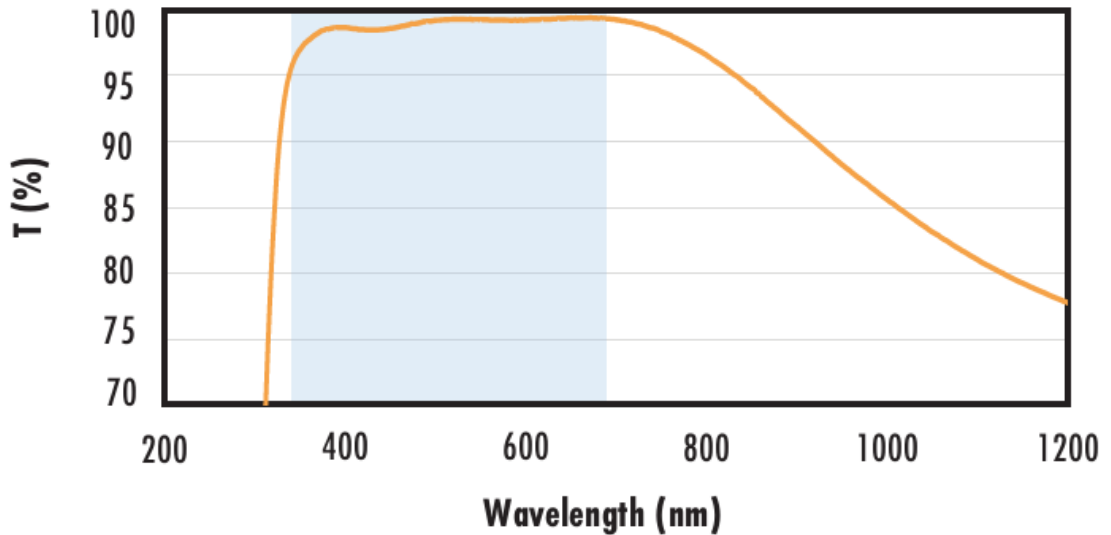
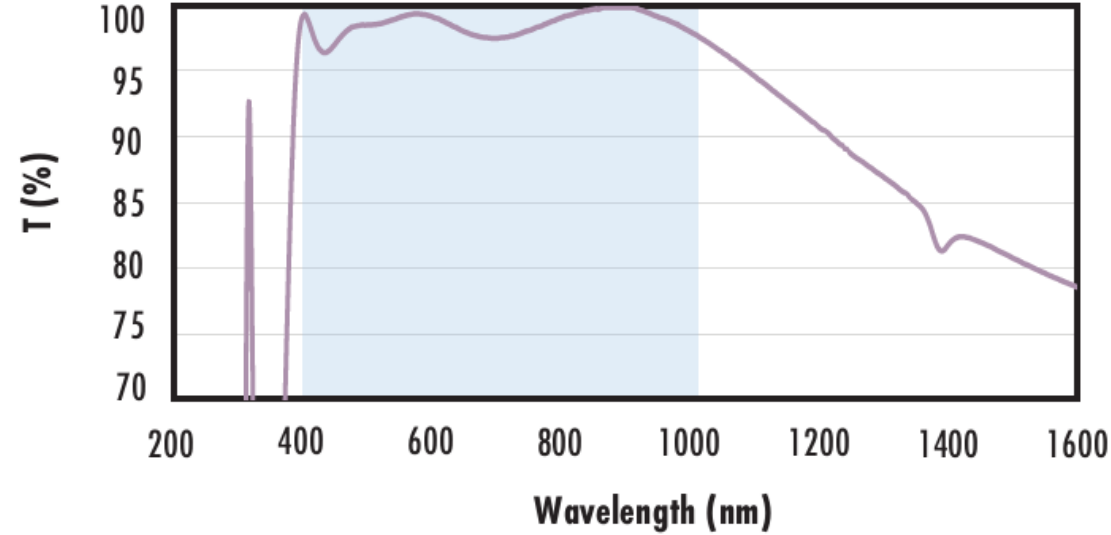
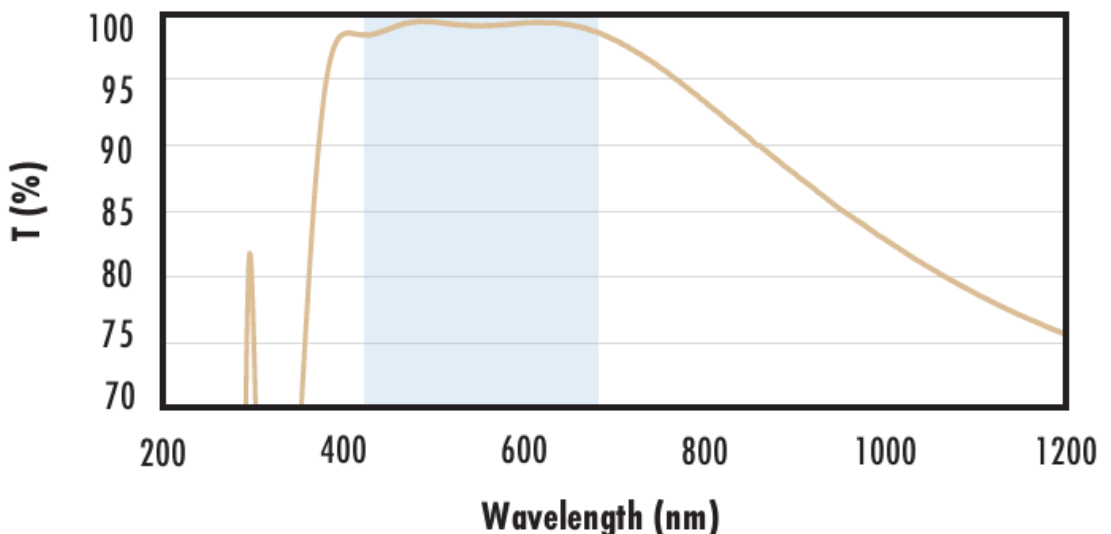
TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or canceled due to the symmetric lens design. TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses have a precision fused silica substrate. These lenses are available uncoated or with UV-AR, UV-VIS, VIS-EXT, VIS-NIR, VIS 0°, NIR I, or NIR II coatings.

## Technical Information



UV FS Transmission Curve

| FUSED SILICA                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Uncoated Fused Silica<br/>Typical Transmission</div><div><div><div>T (%)</div><div><div></div></div></div><div><div></div><div>Wavelength (nm)</div></div></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<br/>Typical Transmission</div><div><div><div>T (%)</div><div><div></div></div></div><div><div></div><div>Wavelength (nm)</div></div></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><div><div><math>R_{avg} \leq 1.75\%</math></div><div>@ 400 - 700nm</div><div>(N-BK7)</div></div></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<br/>Typical Transmission</div><div><div><div>T (%)</div><div><div></div></div></div><div><div></div><div>Wavelength (nm)</div></div></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><div><div><div><math>R_{abs} \leq 1.0\%</math></div><div>@ 250 - 425nm</div></div><div><math>R_{avg} \leq 0.75\%</math></div><div>@ 250 - 425nm</div></div><div><math>R_{avg} \leq 0.5\%</math></div><div>@ 370 - 420nm</div></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 data-bbox="247 127 1285 765"><h3>Fused Silica with UV-VIS Coating<br/>Typical Transmission</h3></div>      | <div data-bbox="1325 290 1850 593"><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>                                                     |
| <div data-bbox="247 819 1285 1436"><h3>Fused Silica with VIS-EXT Coating<br/>Typical Transmission</h3></div>   | <div data-bbox="1325 997 1850 1246"><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>                                                                                                     |
| <div data-bbox="247 1495 1285 2113"><h3>Fused Silica with VIS-NIR Coating<br/>Typical Transmission</h3></div> | <div data-bbox="1325 1632 1850 1958"><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> |
| <div data-bbox="247 2166 1285 2783"><h3>Fused Silica with VIS 0° Coating<br/>Typical Transmission</h3></div>  | <div data-bbox="1325 2338 1850 2594"><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></div>                                                                                                     |
| <div data-bbox="247 2828 1285 2887"><h3>Fused Silica with YAG-BBAR Coating</h3></div>                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><h3>Typical Transmission</h3></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><h3>Fused Silica with NIR I Coating</h3><h3>Typical Transmission</h3></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><h3>Fused Silica with NIR II Coating</h3><h3>Typical Transmission</h3></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

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Compatible Mounts