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TECHSPEC<sup>®</sup> 40mm Dia. x 40mm FL, Uncoated, UV Double-Convex Lens



UV Fused Silica Double-Convex (DCX) Lenses



Stock **#22-420** **8 In Stock**

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-

1

+

£148<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | £148.80 each                  |
| Qty 6-25       | £118.40 each                  |
| Qty 26-49      | £112.00 each                  |
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Double-Convex Lens

Type:

Physical & Mechanical Properties

|                      |                           |
|----------------------|---------------------------|
| 40.00 +0.0/-0.025    | Diameter (mm):            |
| <1                   | Centering (arcmin):       |
| Protective as needed | Bevel:                    |
| 17.44 ±0.10          | Center Thickness CT (mm): |
| 4.28                 | Edge Thickness ET (mm):   |
| 39.00                | Clear Aperture CA (mm):   |

|                             |                                             |
|-----------------------------|---------------------------------------------|
| Optical Properties          |                                             |
| 33.49                       | Back Focal Length BFL (mm):                 |
| 40.00                       | Effective Focal Length EFL (mm):            |
| Uncoated                    | Coating:                                    |
| Uncoated                    | 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:               |
| 33.69                       | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 1.00                        | f/#:                                        |
| 587.6                       | Focal Length Specification Wavelength (nm): |
| ±1                          | Focal Length Tolerance (%):                 |
| 0.50                        | Numerical Aperture NA:                      |
| 200 - 2200                  | Wavelength Range (nm):                      |

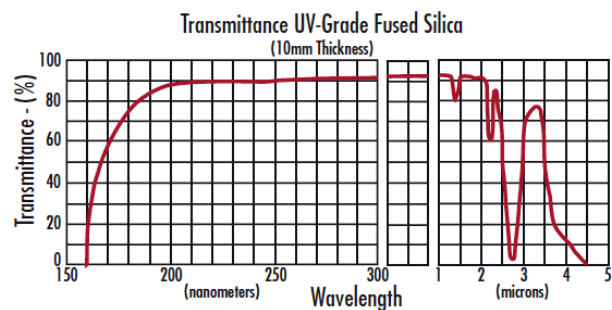
|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| <a href="#">View</a>  | Certificate of Conformance: |

## Product Details

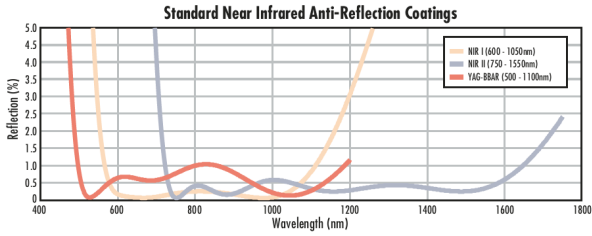
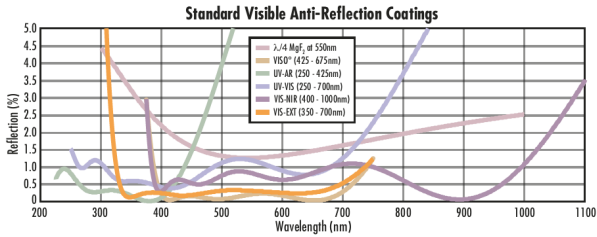
- Ideal for Imaging Applications
- Mnimize Aberrations Including Spherical and Coma
- Precision Fused Silica Substrate

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

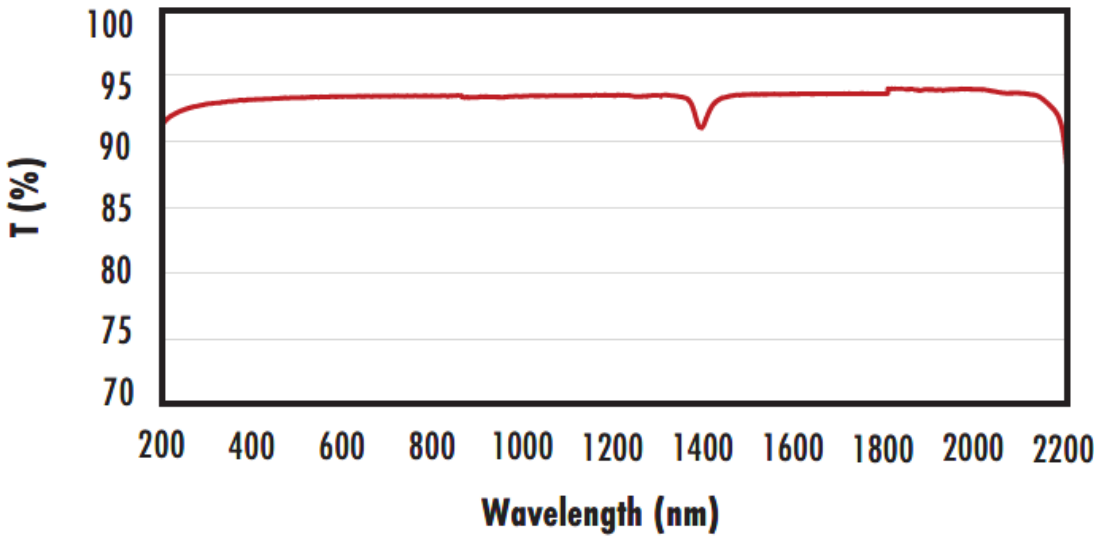


UV FS Transmission Curve



FUSED SILICA

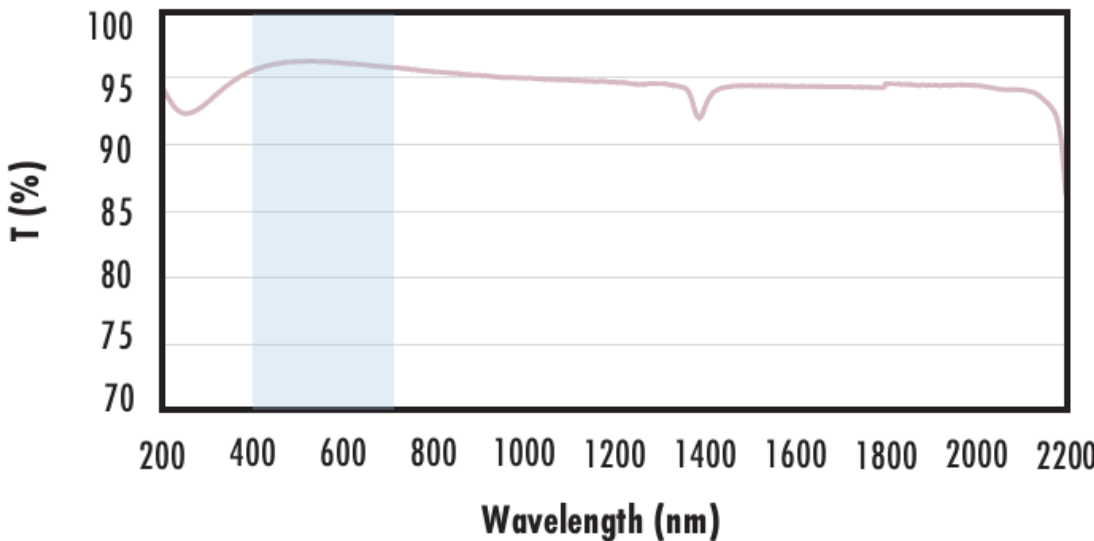
Uncoated Fused Silica  
Typical Transmission



Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.

[Click Here to Download Data](#)

Fused Silica with MgF<sub>2</sub> Coating  
Typical Transmission



Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

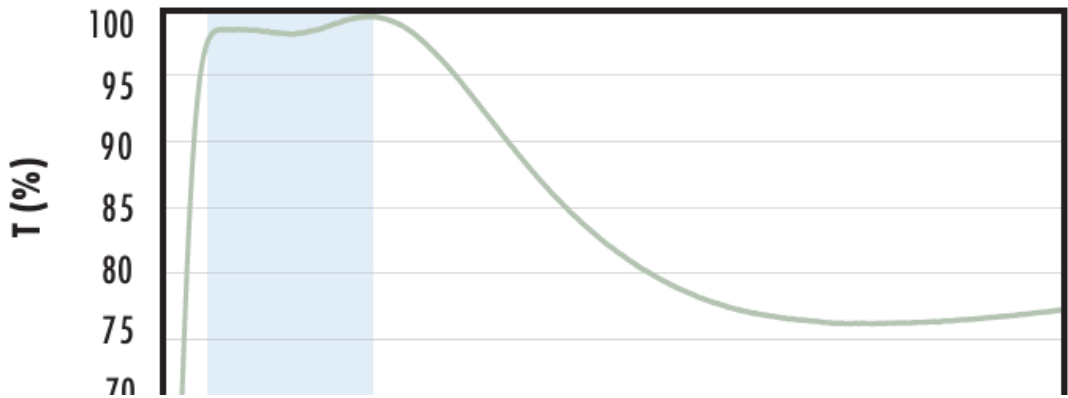
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

Fused Silica with UV-AR Coating  
Typical Transmission



Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

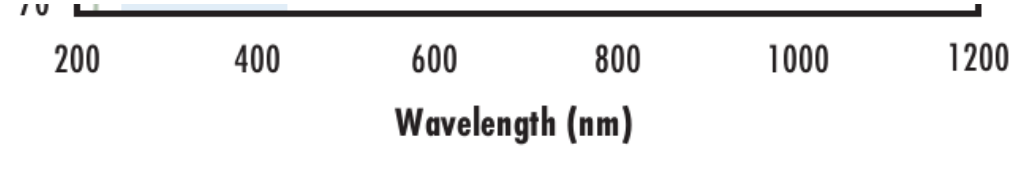
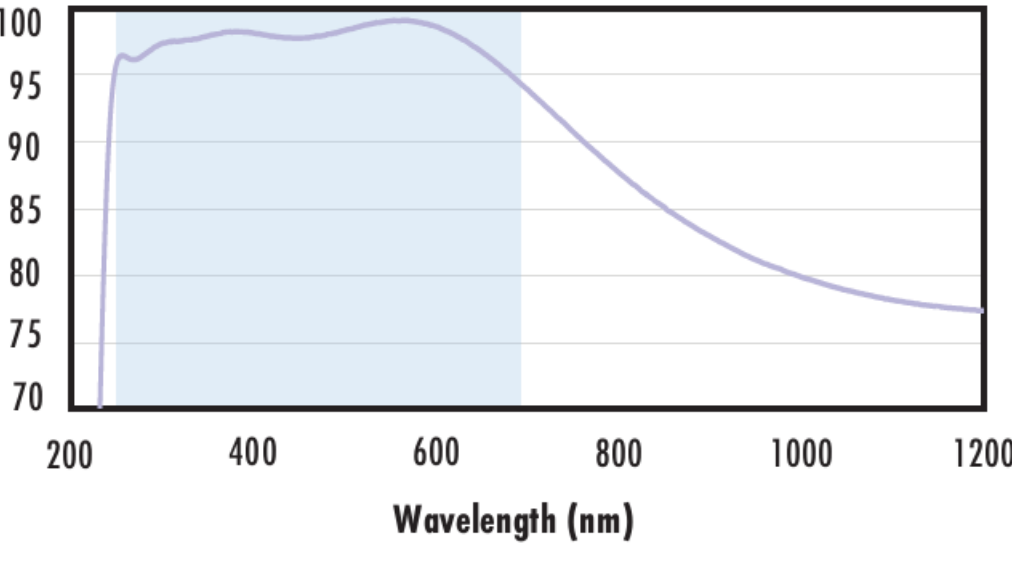
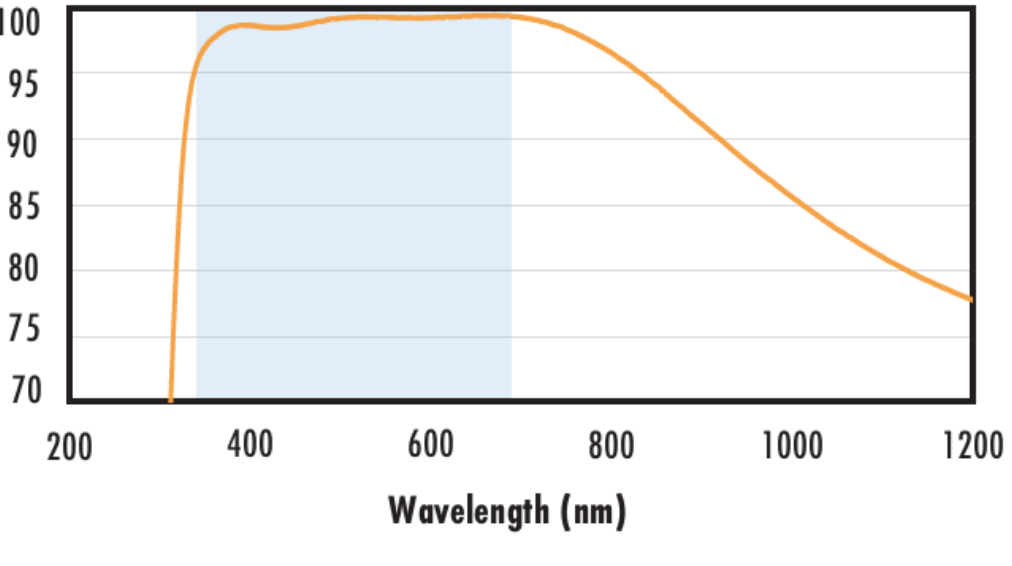
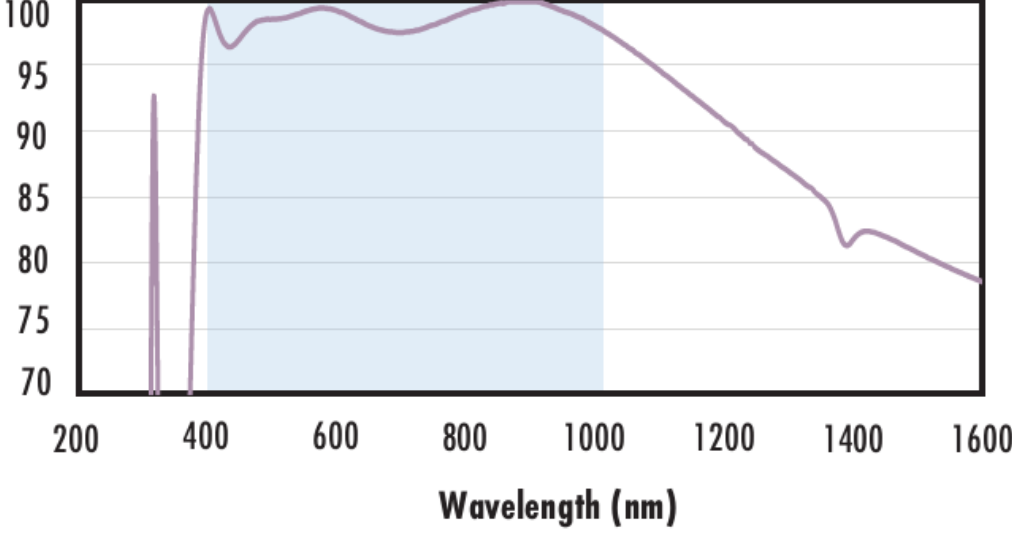
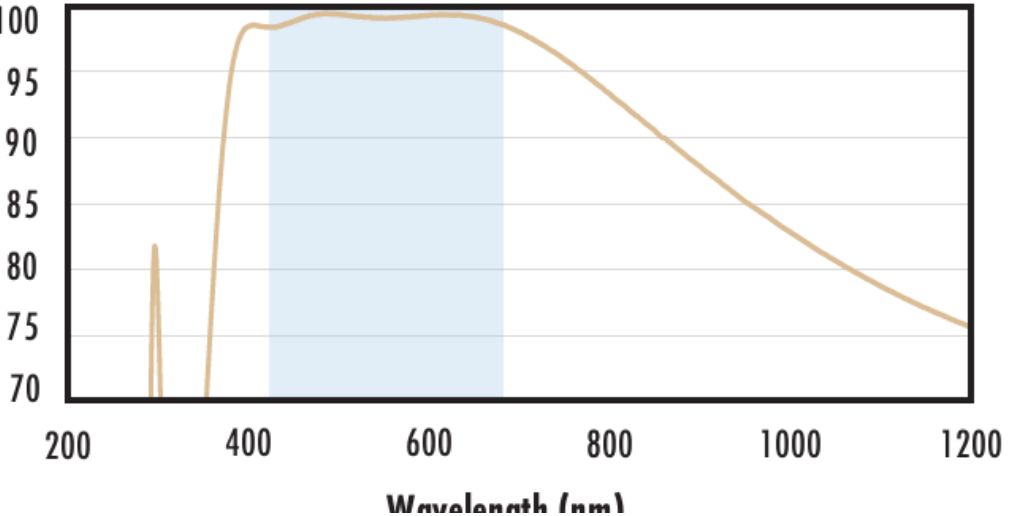
$$R_{abs} \leq 1.0\% \text{ @ } 250 - 425\text{nm}$$

$$R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}$$

$$R_{avg} \leq 0.5\% \text{ @ } 370 - 420\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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|                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p data-bbox="573 255 1083 365"><b>Fused Silica with UV-VIS Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1329 418 1854 468">Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p data-bbox="1329 480 1854 531">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 543 1707 593"><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 629 1854 679">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 691 1707 712"><a href="#">Click Here to Download Data</a></p>                                                                        |
| <p data-bbox="567 934 1089 1044"><b>Fused Silica with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 1121 1854 1172">Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1329 1184 1854 1234">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1246 1707 1270"><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></div> <p data-bbox="1329 1282 1854 1332">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 1344 1707 1365"><a href="#">Click Here to Download Data</a></p>                                                                                                                          |
| <p data-bbox="571 1614 1085 1724"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1329 1760 1854 1810">Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 1822 1854 1872">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 1884 1707 1955"><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 1991 1854 2041">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2053 1707 2074"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="569 2288 1087 2398"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1329 2466 1854 2516">Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 2528 1854 2579">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1476 2591 1707 2614"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1329 2626 1854 2677">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1476 2689 1707 2709"><a href="#">Click Here to Download Data</a></p>                                                                                                                           |

