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TECHSPEC<sup>®</sup> 25mm Dia. x 25mm FL, VIS 0° Coated, UV Double-Convex Lens



UV Fused Silica Double-Convex (DCX) Lenses



Stock **#48-982** 12 In Stock

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-

1

+

€168<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €168,00 each                  |
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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:                    |
| 10.90 ±0.10          | Center Thickness CT (mm): |
| 2.68                 | Edge Thickness ET (mm):   |
| 24.00                | Clear Aperture CA (mm):   |

Optical Properties

|                                             |                                                       |
|---------------------------------------------|-------------------------------------------------------|
| 20.93                                       | Back Focal Length BFL (mm):                           |
| 25.00                                       | Effective Focal Length EFL (mm):                      |
| VIS 0° (425-675nm)                          | Coating:                                              |
| R <sub>avg</sub> ≤0.4% @ 425 - 675nm        | Coating Specification:                                |
| <a href="#">Fused Silica</a> (Corning 7980) | Substrate: <input type="checkbox"/>                   |
| 40-20                                       | Surface Quality:                                      |
| 1.5λ                                        | Power (P-V) @ 632.8nm:                                |
| λ/4                                         | Irregularity (P-V) @ 632.8nm:                         |
| 21.06                                       | 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:                                |
| 425 - 675                                   | Wavelength Range (nm):                                |
| 5 J/cm² @ 532nm, 10ns                       | Damage Threshold, Reference: <input type="checkbox"/> |

Regulatory Compliance

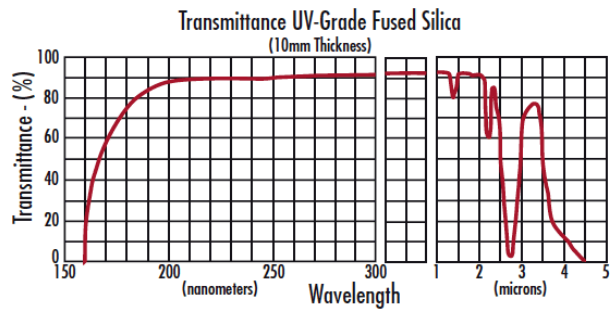
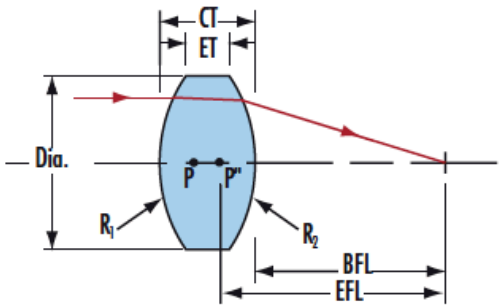
|                           |                             |
|---------------------------|-----------------------------|
| <a href="#">Compliant</a> | RoHS 2015:                  |
| <a href="#">View</a>      | Certificate of Conformance: |
| <a href="#">Compliant</a> | Reach 235:                  |

## Product Details

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

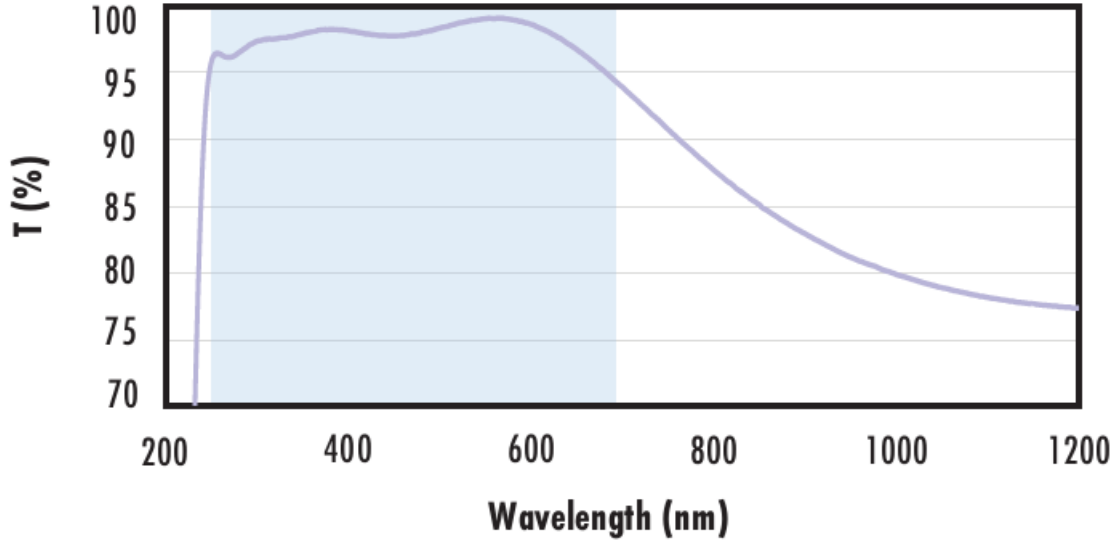
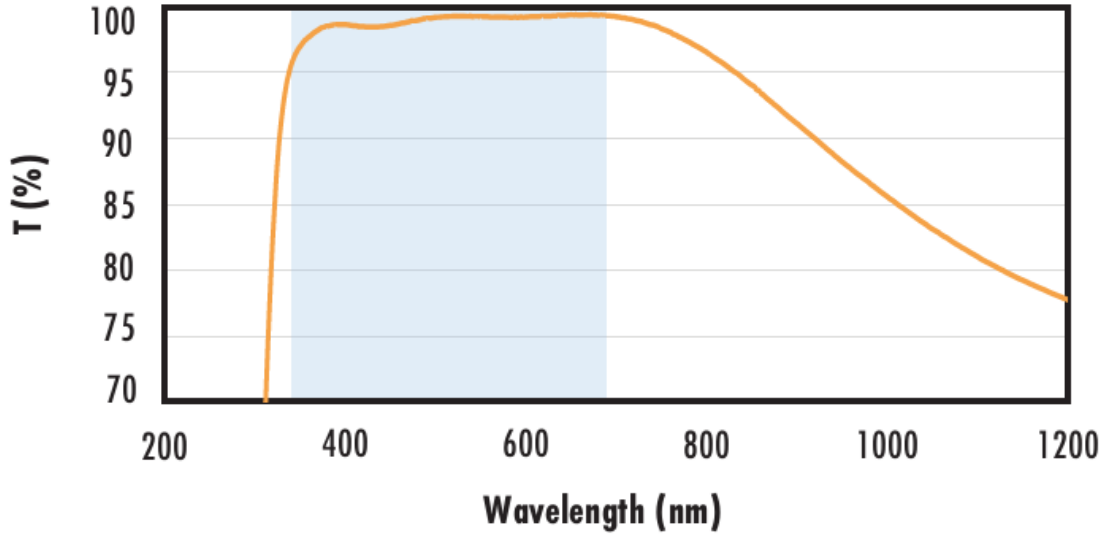
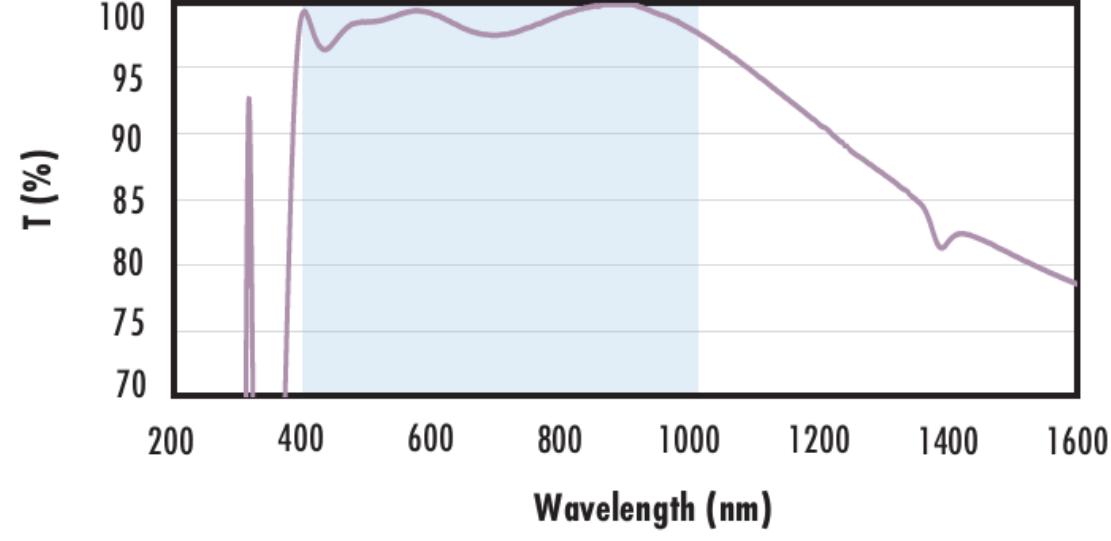
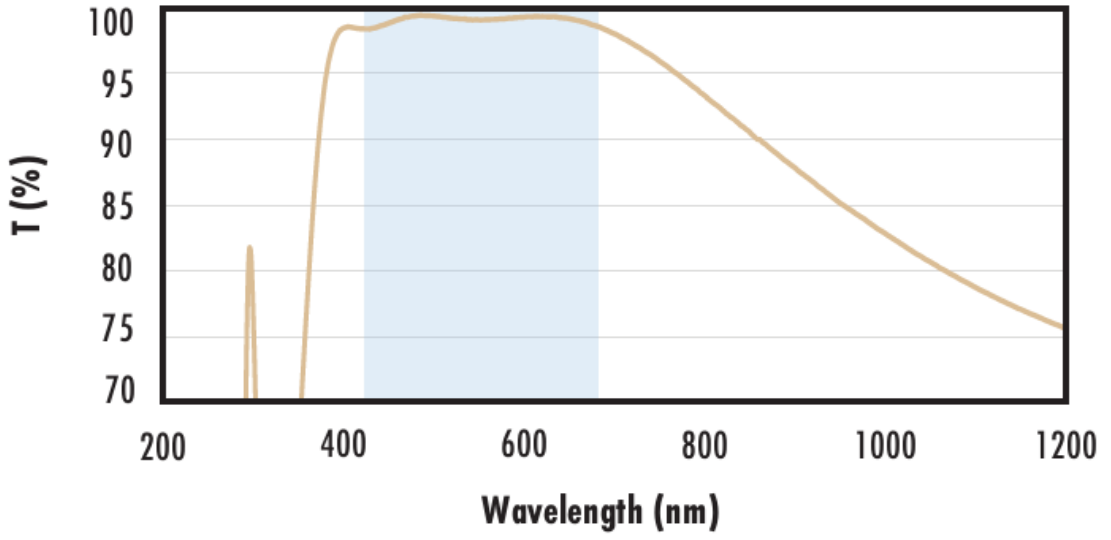
TECHSPEC® UV Fused Silica Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) 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.

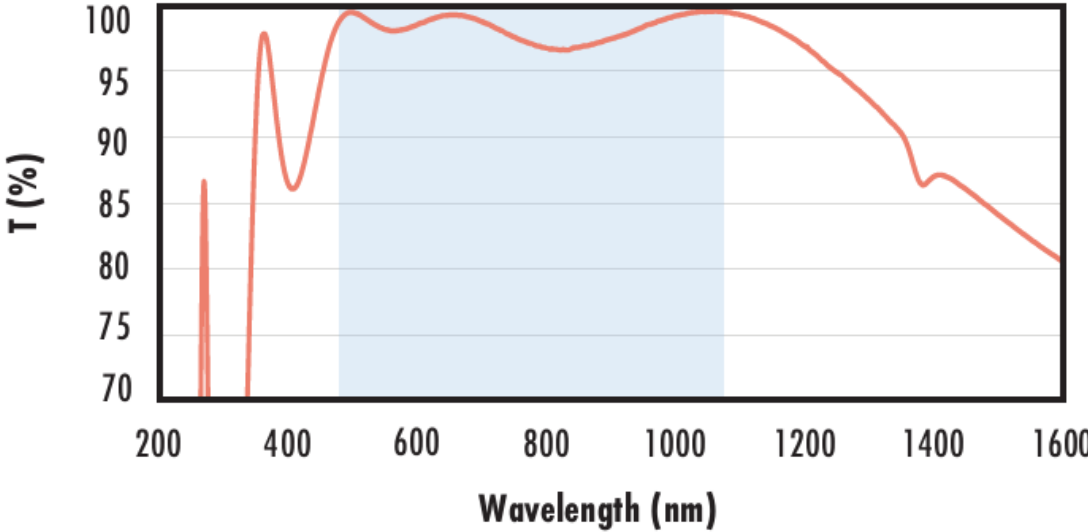
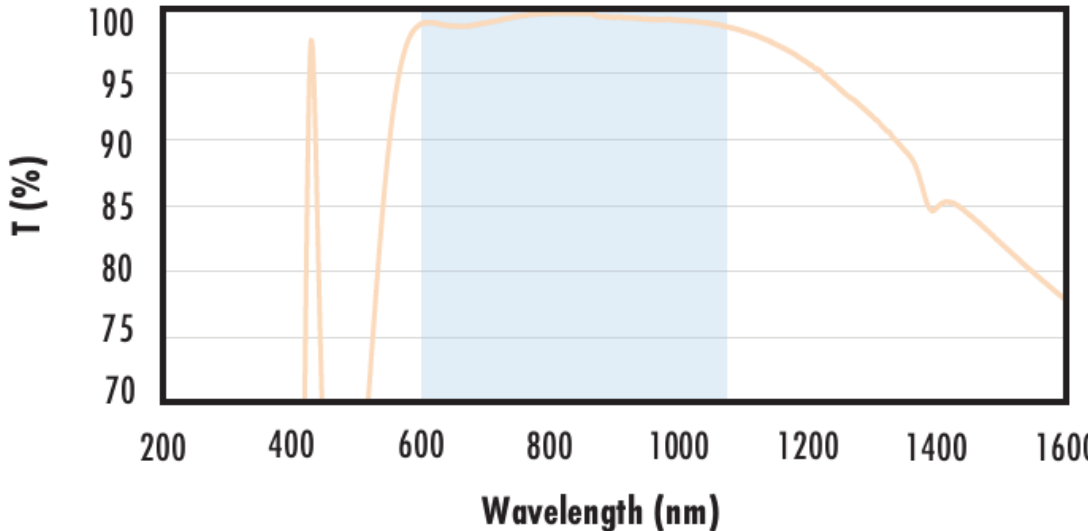
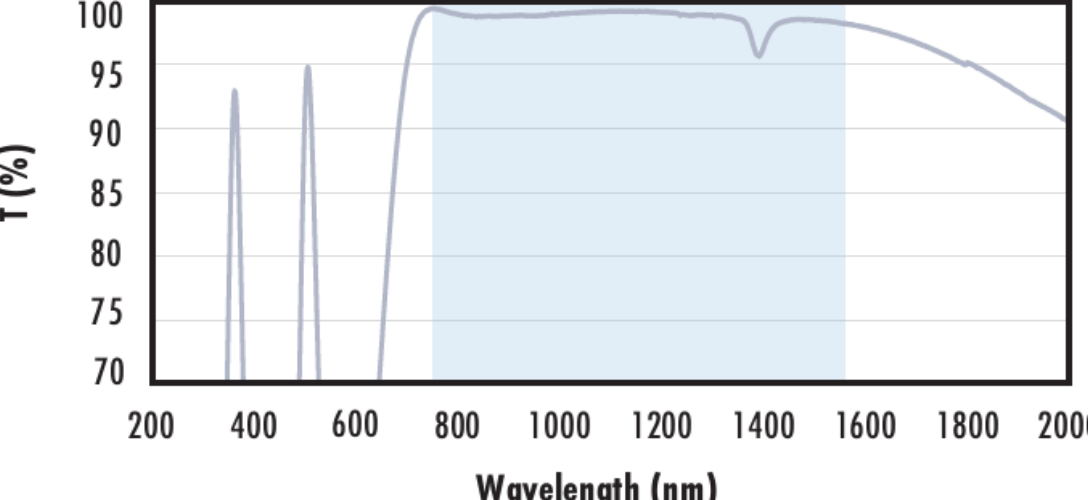
## Technical Information



UV FS Transmission Curve

| FUSED SILICA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|-----|----|-----|----|-----|----|-----|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|--|
| <div><div>Uncoated Fused Silica<br/>Typical Transmission</div><div><table border="1"><caption>Approximate data for Uncoated Fused Silica Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>92</td></tr><tr><td>400</td><td>94</td></tr><tr><td>600</td><td>94</td></tr><tr><td>800</td><td>94</td></tr><tr><td>1000</td><td>94</td></tr><tr><td>1200</td><td>94</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>94</td></tr><tr><td>1800</td><td>94</td></tr><tr><td>2000</td><td>94</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table></div></div> <div><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></div>                                                                                                                                                                                                                                                                                                        | Wavelength (nm)    | Transmission T (%) | 200 | 92 | 400 | 94 | 600 | 94 | 800 | 94 | 1000 | 94 | 1200 | 94 | 1400 | 92 | 1600 | 94 | 1800 | 94 | 2000 | 94 | 2200 | 90 |  |
| Wavelength (nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Transmission T (%) |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 92                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 92                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 2200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 90                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| <div><div>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</div><div><table border="1"><caption>Approximate data for Fused Silica with MgF2 Coating Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>94</td></tr><tr><td>400</td><td>96</td></tr><tr><td>600</td><td>96</td></tr><tr><td>800</td><td>96</td></tr><tr><td>1000</td><td>96</td></tr><tr><td>1200</td><td>96</td></tr><tr><td>1400</td><td>94</td></tr><tr><td>1600</td><td>96</td></tr><tr><td>1800</td><td>96</td></tr><tr><td>2000</td><td>96</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table></div></div> <div><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></div> | Wavelength (nm)    | Transmission T (%) | 200 | 94 | 400 | 96 | 600 | 96 | 800 | 96 | 1000 | 96 | 1200 | 96 | 1400 | 94 | 1600 | 96 | 1800 | 96 | 2000 | 96 | 2200 | 90 |  |
| Wavelength (nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Transmission T (%) |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 94                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 96                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 2200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 90                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| <div><div>Fused Silica with UV-AR Coating<br/>Typical Transmission</div><div><table border="1"><caption>Approximate data for Fused Silica with UV-AR Coating Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>200</td><td>70</td></tr><tr><td>250</td><td>98</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>90</td></tr><tr><td>800</td><td>78</td></tr><tr><td>1000</td><td>75</td></tr><tr><td>1200</td><td>76</td></tr></tbody></table></div></div> <div><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></div>                                               | Wavelength (nm)    | Transmission T (%) | 200 | 70 | 250 | 98 | 400 | 98 | 600 | 90 | 800  | 78 | 1000 | 75 | 1200 | 76 |      |    |      |    |      |    |      |    |  |
| Wavelength (nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Transmission T (%) |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 70                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 98                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 98                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 90                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 78                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 75                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |
| 1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 76                 |                    |     |    |     |    |     |    |     |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |  |

|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Fused Silica with UV-VIS Coating</div><div>Typical Transmission</div></div>    | <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><div><div><math>R_{abs} \leq 1.0\%</math> @ 350 - 450nm</div><div><math>R_{avg} \leq 1.5\%</math> @ 250 - 700nm</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><div>Fused Silica with VIS-EXT Coating</div><div>Typical Transmission</div></div>  | <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><div><div><math>R_{avg} \leq 0.5\%</math> @ 350 - 700nm</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><div>Fused Silica with VIS-NIR Coating</div><div>Typical Transmission</div></div> | <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><div><div><math>R_{abs} \leq 0.25\%</math> @ 880nm</div><div><math>R_{avg} \leq 1.25\%</math> @ 400 - 870nm</div><div><math>R_{avg} \leq 1.25\%</math> @ 890 - 1000nm</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><div>Fused Silica with VIS 0° Coating</div><div>Typical Transmission</div></div>  | <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><div><div><math>R_{avg} \leq 0.4\%</math> @ 425 - 675nm</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><div>Fused Silica with YAG-BBAR Coating</div></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><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</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.

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- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

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Compatible Mounts