

TECHSPEC®

Doppelkonvexe Linse aus UV-Quarzglas, 9 mm D. x 9 mm eff. BW, NIR-II-beschichtet



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#22-180** **4 In Stock**

☐ [Andere Beschichtungen](#)

-

1

+

€149<sup>00</sup>

+ WARENKORB

| Mengenrabatte |                                 |
|---------------|---------------------------------|
| Stk. 1-5      | €149,00 stückpreis              |
| Stk. 6-25     | €119,00 stückpreis              |
| Stk. 26-49    | €111,00 stückpreis              |
| Need More?    | <a href="#">Angebotsanfrage</a> |

Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

| Produktdetails     |      |
|--------------------|------|
| Double-Convex Lens | Typ: |
|                    |      |
|                    |      |

| Physikalische und mechanische Eigenschaften         |                                                                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Durchmesser (mm):                                   | 9.00 +0.0/-0.025                                                                                                       |
| Zentrierung (Bogenminuten):                         | <1                                                                                                                     |
| Fase:                                               | Protective as needed                                                                                                   |
| Mittendicke CT (mm):                                | 4.90 ±0.05                                                                                                             |
| Randdicke ET (mm):                                  | 1.84                                                                                                                   |
| Freie Apertur CA (mm):                              | 8.1                                                                                                                    |
| Optische Eigenschaften                              |                                                                                                                        |
| Hintere Brennweite BFL (mm):                        | 7.12                                                                                                                   |
| Effektive Brennweite EFL (mm):                      | 9.00                                                                                                                   |
| Beschichtung:                                       | NIR II (750-1550nm)                                                                                                    |
| Beschichtungsspezifikation:                         | R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm |
| Substrat: <input type="checkbox"/>                  | <a href="#">Fused Silica</a> (Corning 7980)                                                                            |
| Oberflächenqualität:                                | 40-20                                                                                                                  |
| Power (P-V) @ 632,8 nm:                             | 1.5λ                                                                                                                   |
| Unregelmäßigkeit (P-V) @ 632,8 nm:                  | λ/4                                                                                                                    |
| Radius R <sub>1</sub> =R <sub>2</sub> (mm):         | 7.39                                                                                                                   |
| Blende:                                             | 1.00                                                                                                                   |
| Designwellenlänge Brennweite (nm):                  | 587.6                                                                                                                  |
| Toleranz Brennweite (%):                            | ±1                                                                                                                     |
| Numerische Apertur NA:                              | 0.50                                                                                                                   |
| Wellenlängenbereich (nm):                           | 750 - 1550                                                                                                             |
| Zerstörschwelle, Referenz: <input type="checkbox"/> | 8 J/cm² @ 1064nm, 10ns                                                                                                 |
| Konformität mit Standards                           |                                                                                                                        |
| RoHS 2015:                                          | <a href="#">Konform</a>                                                                                                |
| Konformitätszertifikat:                             | <a href="#">Anzeigen</a>                                                                                               |
| Reach 235:                                          | <a href="#">Konform</a>                                                                                                |

## Gewünschte Spezifikationen nicht dabei?

Edmund Optics bietet einen umfangreichen kundenspezifischen Fertigungsservice für Optik- und Bildverarbeitungskomponenten an, speziell hergestellt für Ihre Anwendungsanforderungen. Wir ermöglichen flexible Lösungen für Ihre Bedürfnisse – von der Prototypenphase bis zur Serienfertigung. Unsere erfahrenen IngenieurInnen freuen sich auf die Zusammenarbeit und unterstützen Sie bei jedem Projektschritt.

Unser Service beinhaltet:

- Kundenspezifische Abmessungen, Materialien und mehr
- Hochpräzise Oberflächenqualität und -ebenheit
- Enge Toleranzen und komplexe Formen
- Skalierbare Produktion – vom Prototypen zur Serie

Erfahren Sie mehr über unsere [kundenspezifischen Fertigungsmöglichkeiten](#) oder senden Sie [hier](#) eine Anfrage.

## Produktdetails

- Ideal für die Bildgebung
- Minimieren Aberrationen wie sphärische Aberration oder Koma
- Präzises Substrat aus Quarzglas

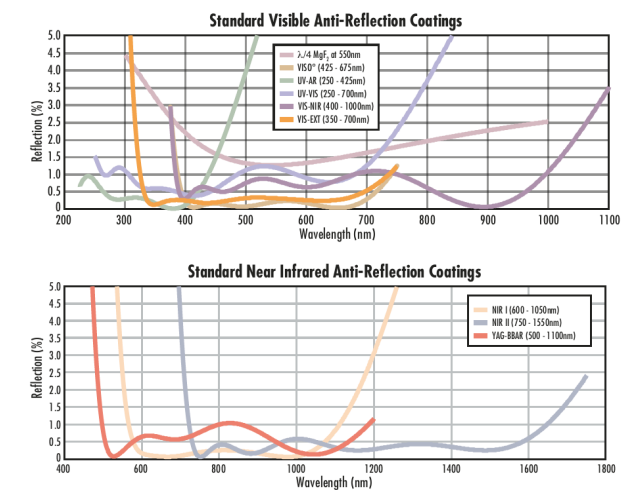
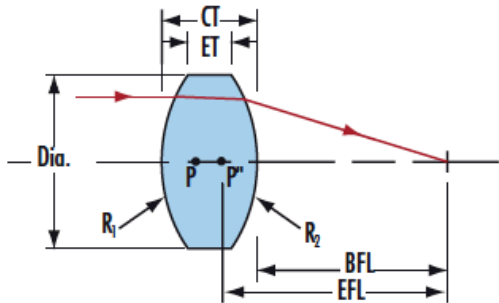
Die TECHSPEC® doppelkonvexen Linsen (DCX-Linsen) aus UV-Quarzglas, auch bikonvexe Linsen genannt, haben zwei positive, symmetrische Oberflächen mit gleichem Krümmungsradius auf beiden Seiten. Die Linsen werden

generell für Bildgebungen mit endlichem Abstand und Konjugiertenverhältnis (Verhältnis zwischen Objekt- und Bildweite) zwischen 0,2 und 5 empfohlen. Bei einem Konjugiertenverhältnis von 1 sind Aberrationen wie sphärische Aberration, chromatische Aberration, Koma und Verzeichnung aufgrund des symmetrischen Linsendesigns minimiert oder sogar ganz eliminiert.

## Technische Informationen

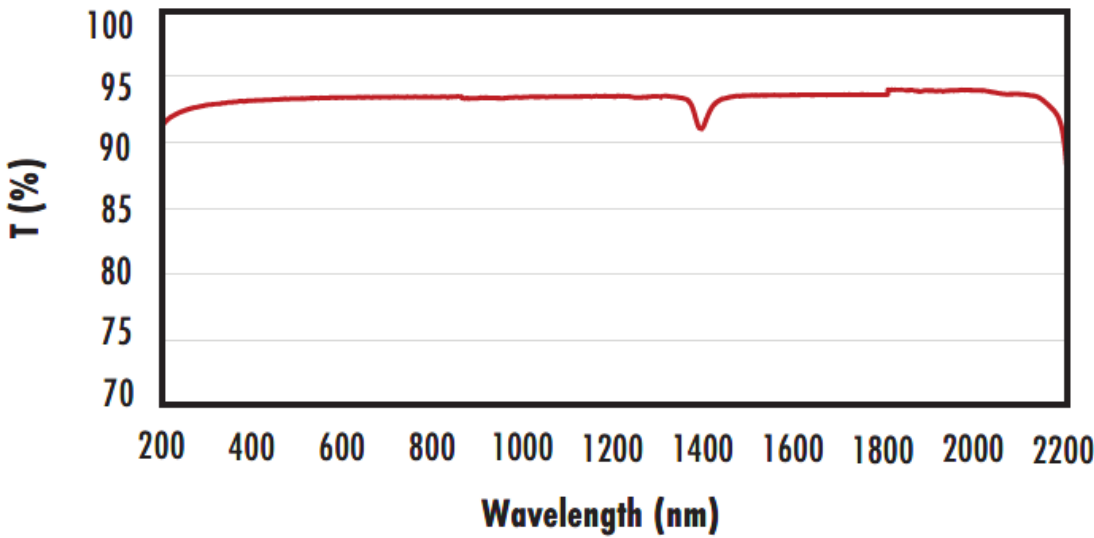


UV FS Transmission Curve



### FUSED SILICA

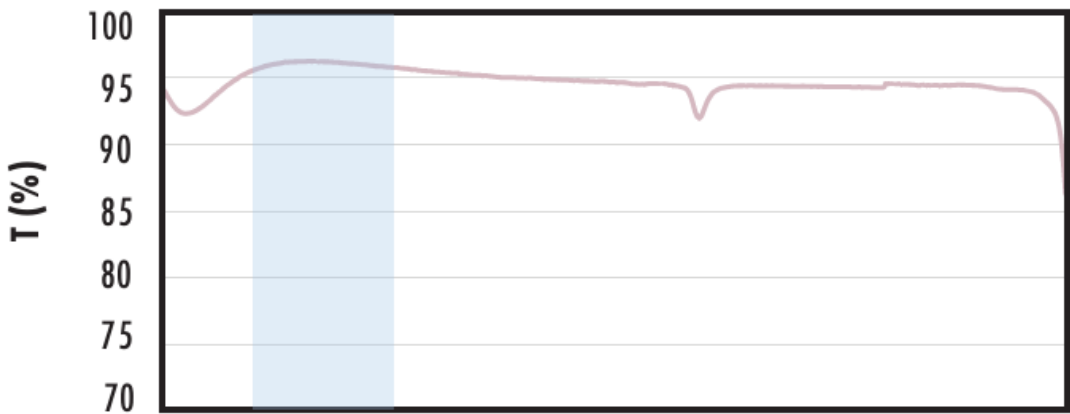
#### Uncoated Fused Silica Typical Transmission



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



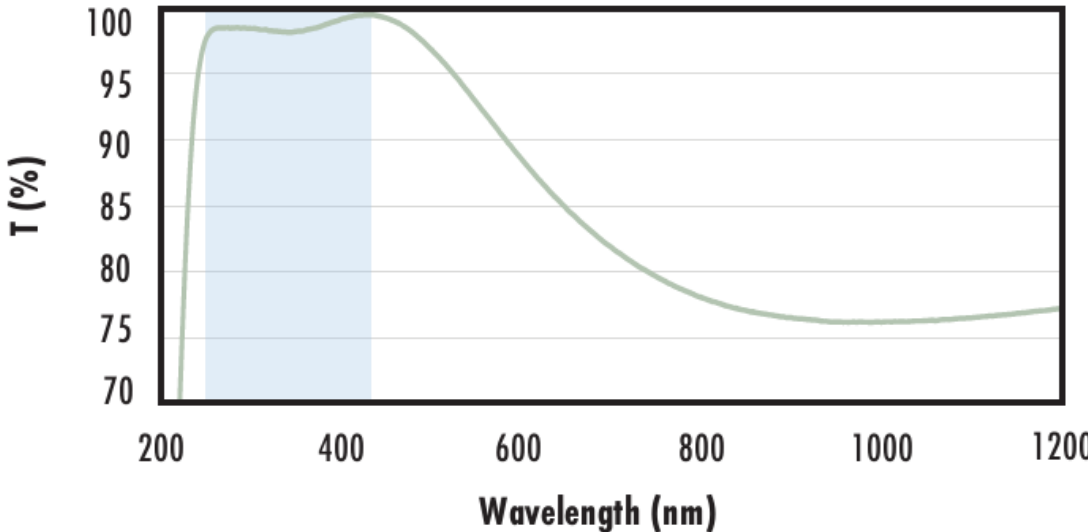
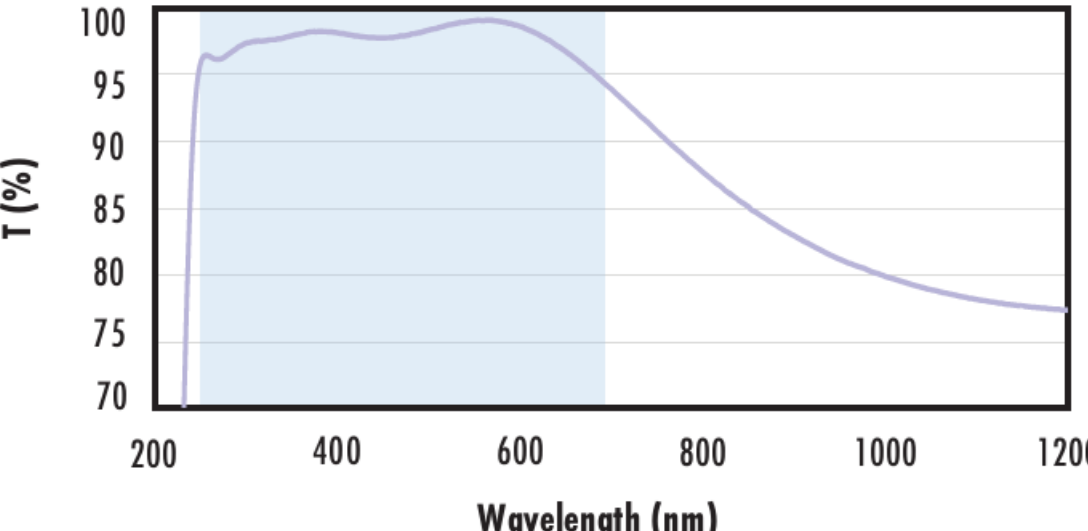
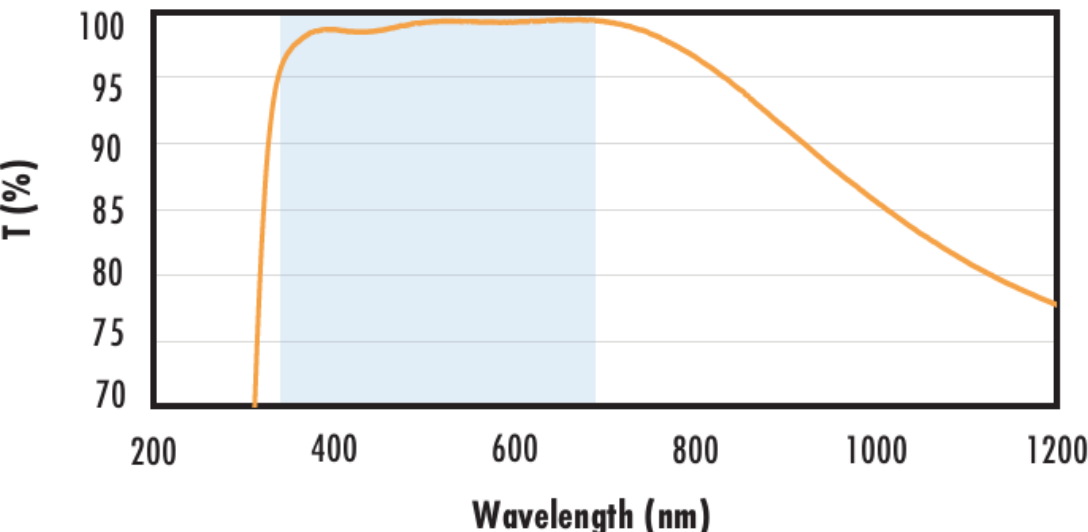
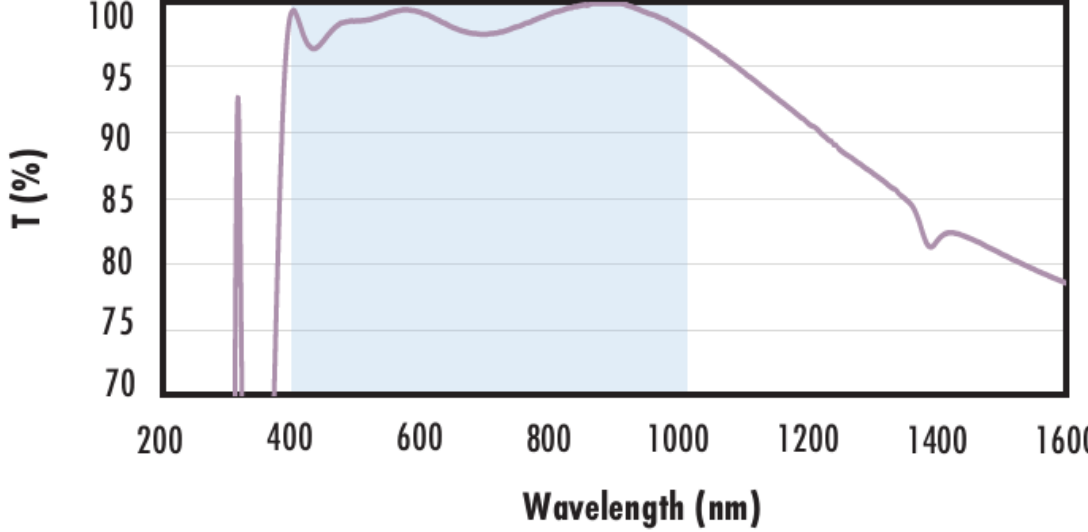
Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

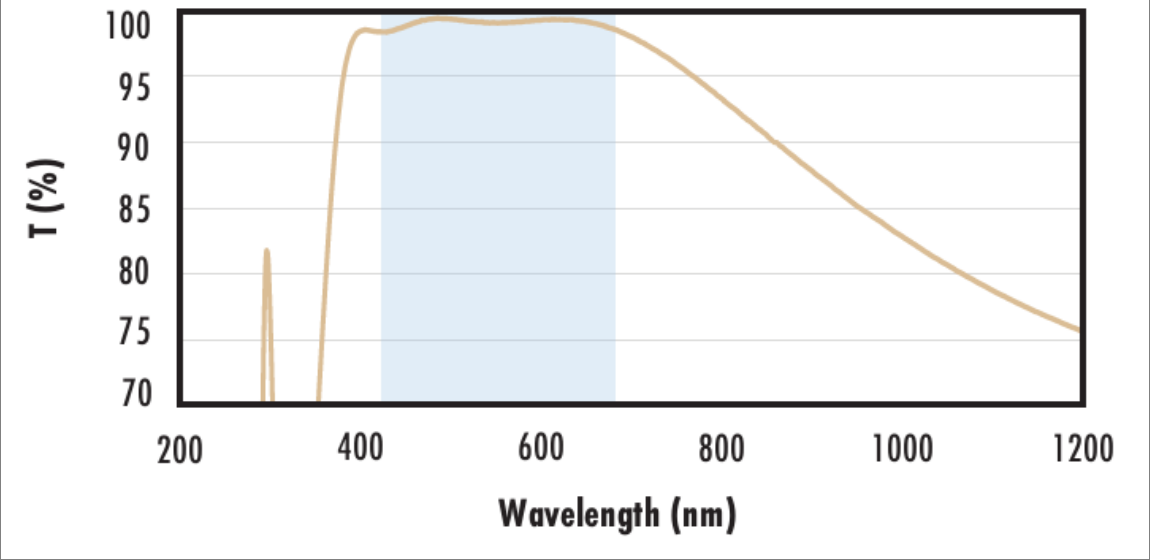
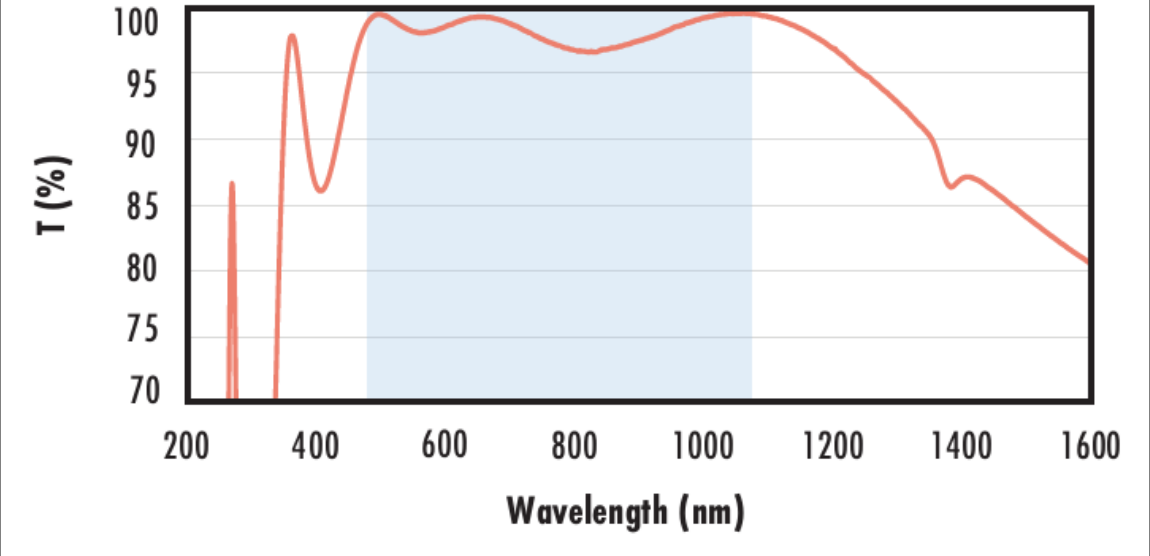
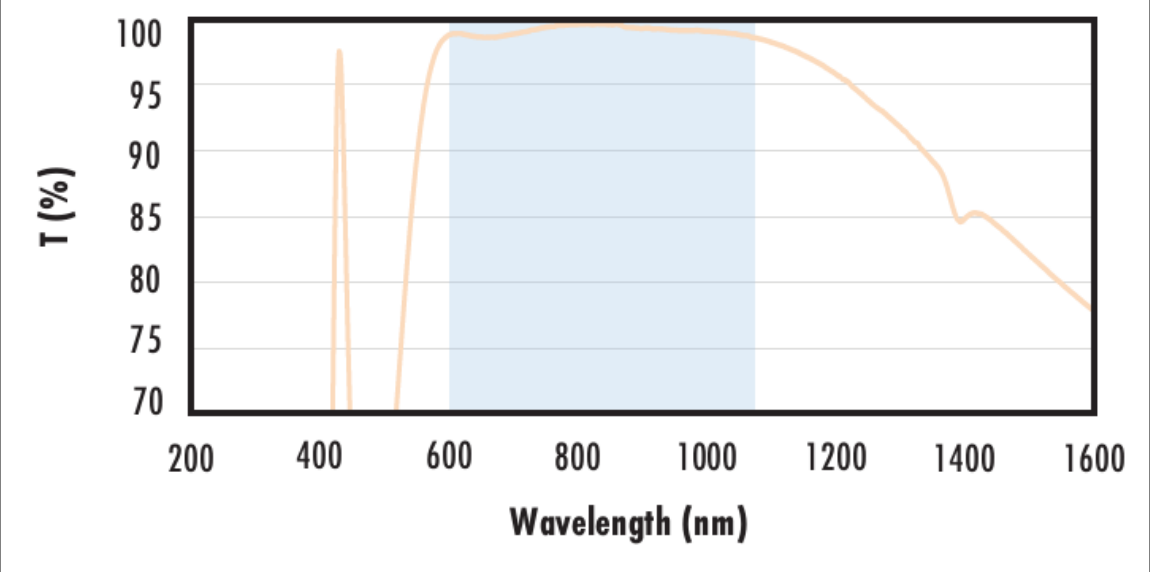
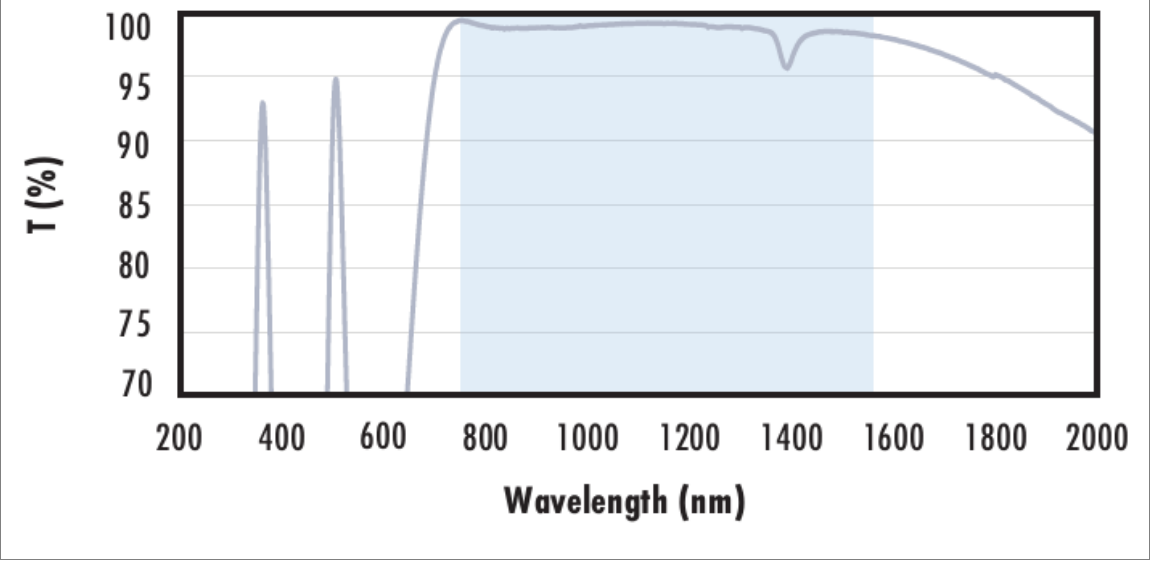
The blue shaded region indicates the coating design wavelength range, with the following specification:

R<sub>avg</sub> ≤ 1.75% @ 400 - 700nm (N-BK7)

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

[Click Here to Download Data](#)

|                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>2004006008001000120014001600180020002200</div> <div>Wavelength (nm)</div>                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <div>Fused Silica with UV-AR Coating</div> <div>Typical Transmission</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> <div><div><math>R_{abs} \leq 1.0\%</math> @ 250 - 425nm</div><div><math>R_{avg} \leq 0.75\%</math> @ 250 - 425nm</div><div><math>R_{avg} \leq 0.5\%</math> @ 370 - 420nm</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>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>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>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></div></div>    | <div><div>Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><div><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></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><div>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</div><div></div></div></div> | <div><div>Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><div><math>R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}</math></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><div>Fused Silica with NIR I Coating</div><div>Typical Transmission</div><div></div></div></div>   | <div><div>Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><div><math>R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}</math></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><div>Fused Silica with NIR II Coating</div><div>Typical Transmission</div><div></div></div></div>  | <div><div>Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</div><div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div><div><div><math>R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}</math></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> |

