

TECHSPEC<sup>®</sup>

Doppelkonvexe Linse aus UV-Quarzglas, 12 mm D. x 15 mm eff. BW, NIR-I-beschichtet



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#22-164** **3 In Stock**

[Andere Beschichtungen](#)

-

1

+

€151<sup>00</sup>

+ WARENKORB

| Mengenrabatte |                                 |
|---------------|---------------------------------|
| Stk. 1-5      | €151,00 stückpreis              |
| Stk. 6-25     | €121,00 stückpreis              |
| Stk. 26-49    | €114,00 stückpreis              |
| Need More?    | <a href="#">Angebotsanfrage</a> |

Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

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

| Physikalische und mechanische Eigenschaften |                                                     |
|---------------------------------------------|-----------------------------------------------------|
| 12.00 +0.0/-0.025                           | Durchmesser (mm):                                   |
| <1                                          | Zentrierung (Bogenminuten):                         |
| Protective as needed                        | Fase:                                               |
| 4.50 ±0.05                                  | Mittendicke CT (mm):                                |
| 1.57                                        | Randdicke ET (mm):                                  |
| 11.00                                       | Freie Apertur CA (mm):                              |
| Optische Eigenschaften                      |                                                     |
| 13.37                                       | Hintere Brennweite BFL (mm):                        |
| 15.00                                       | Effektive Brennweite EFL (mm):                      |
| NIR I (600-1050nm)                          | Beschichtung:                                       |
| R <sub>avg</sub> ≤0.5% @ 600 - 1050nm       | Beschichtungsspezifikation:                         |
| <b>Fused Silica</b> (Corning 7980)          | Substrat: <input type="checkbox"/>                  |
| 40-20                                       | Oberflächenqualität:                                |
| 1.5λ                                        | Power (P-V) @ 632,8 nm:                             |
| λ/4                                         | Unregelmäßigkeit (P-V) @ 632,8 nm:                  |
| 13.01                                       | Radius R <sub>1</sub> =R <sub>2</sub> (mm):         |
| 1.25                                        | Blende:                                             |
| 587.6                                       | Designwellenlänge Brennweite (nm):                  |
| ±1                                          | Toleranz Brennweite (%):                            |
| 0.40                                        | Numerische Apertur NA:                              |
| 600 - 1050                                  | Wellenlängenbereich (nm):                           |
| 7 J/cm <sup>2</sup> @ 1064nm, 10ns          | Zerstörschwelle, Referenz: <input type="checkbox"/> |
| Konformität mit Standards                   |                                                     |
| <b>Konform</b>                              | RoHS 2015:                                          |
| <b>Anzeigen</b>                             | Konformitätszertifikat:                             |
| <b>Konform</b>                              | Reach 235:                                          |

## 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:

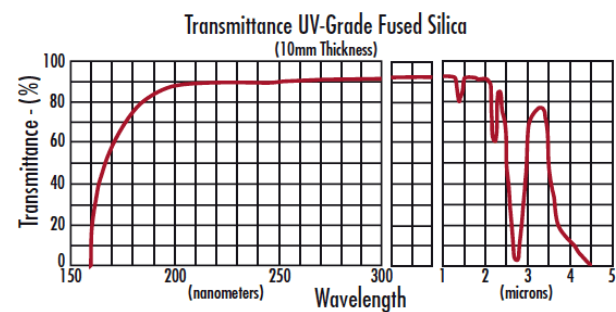
- Kundenspezifische Abmessungen, Materialien und mehr
  - Hochpräzise Oberflächenqualität und -ebenheit
  - Enge Toleranzen und komplexe Formen
  - Skalierbare Produktion – vom Prototypen zur Serie
- Erfahren Sie mehr über unsere [kundenspezifischen Fertigungsmöglichkeiten](#) oder senden Sie [hier](#) eine Anfrage.

## Produktdetails

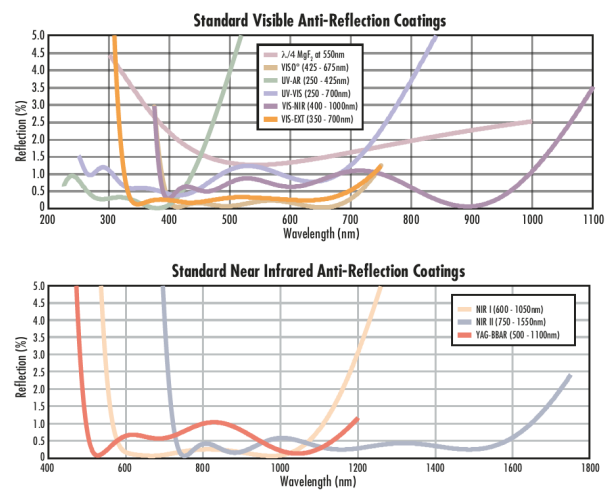
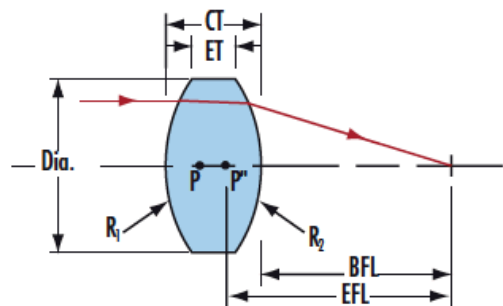
- Ideal für die Bildgebung
- Minimieren Aberrationen wie sphärische Aberration oder Koma
- Präzises Substrat aus Quarzglas

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

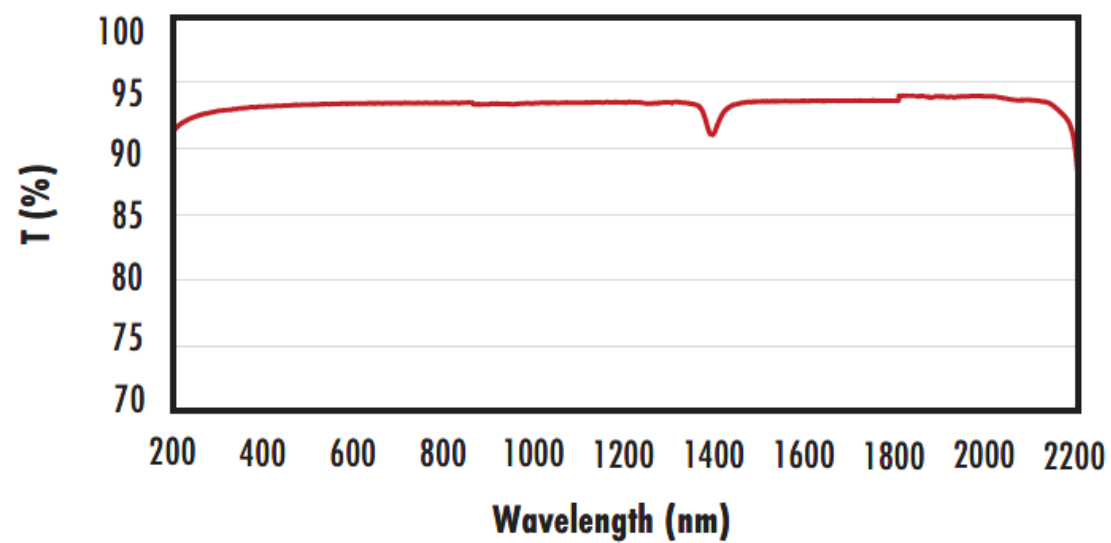


UV FS Transmission Curve



## FUSED SILICA

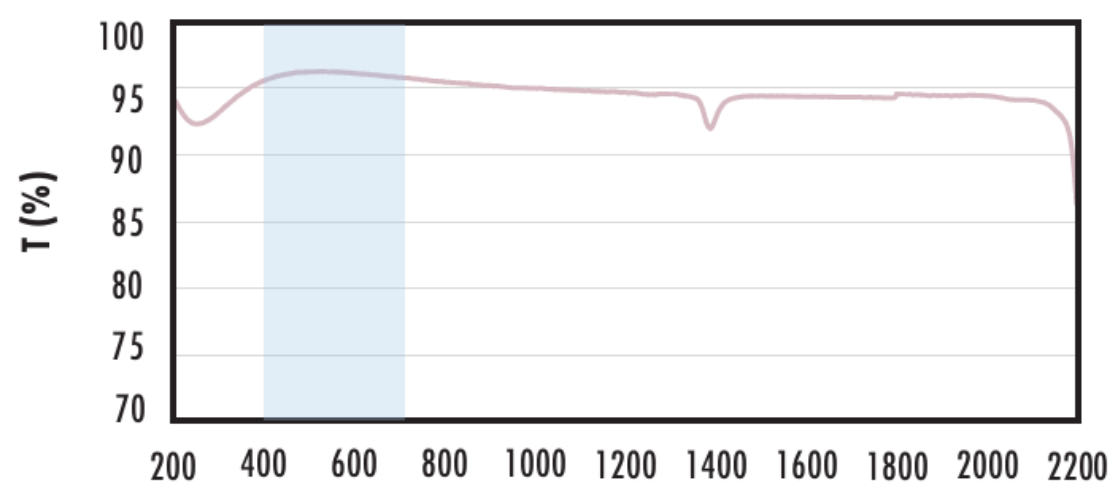
### Uncoated Fused Silica Typical Transmission



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

[Click Here to Download Data](#)

### Fused Silica with $MgF_2$ Coating Typical Transmission



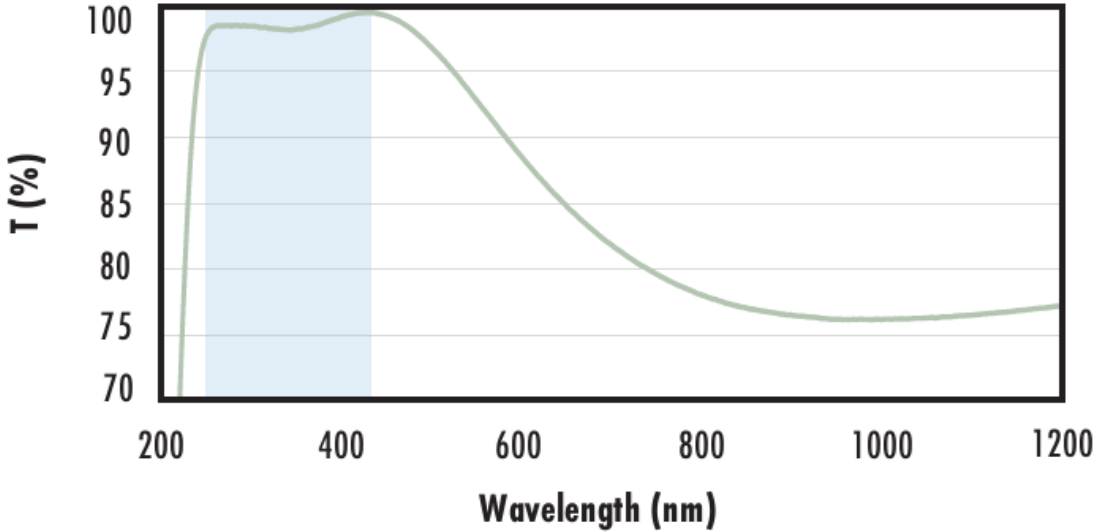
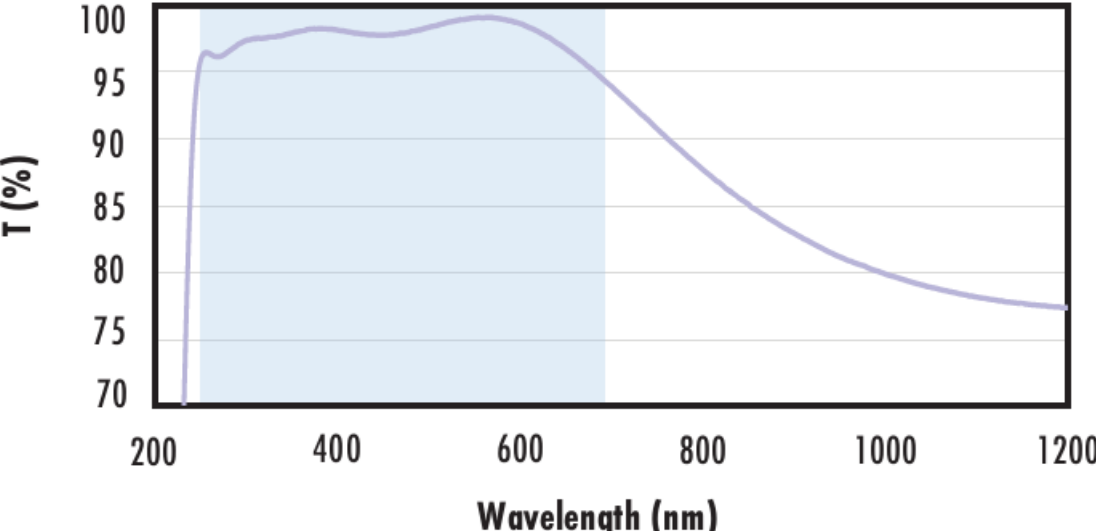
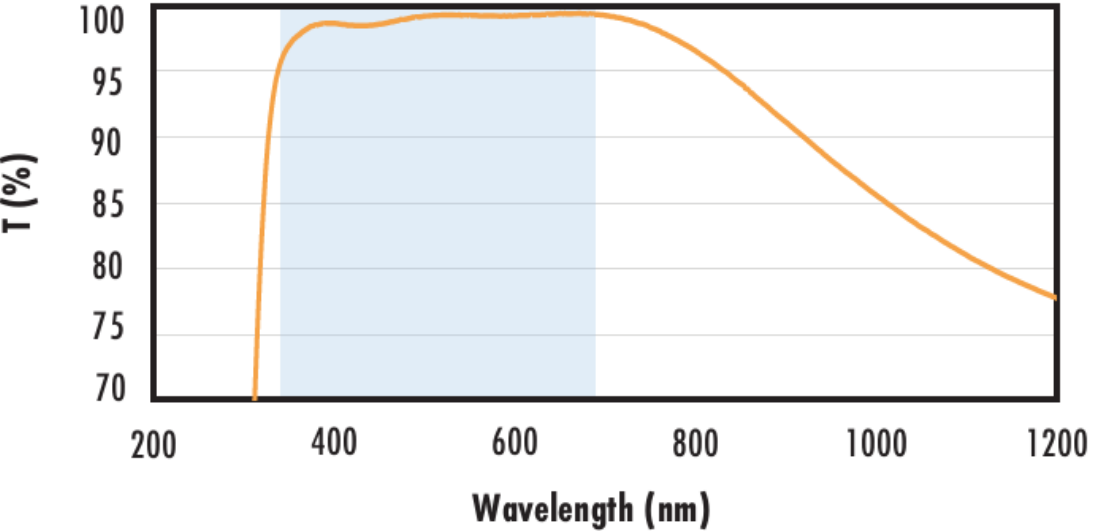
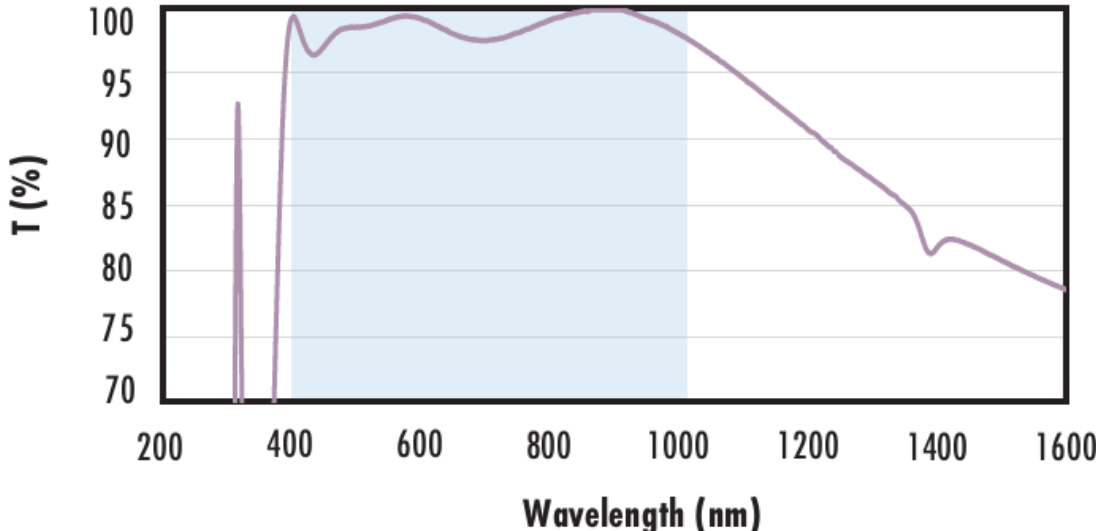
Typical transmission of a 3mm thick fused silica window with  $MgF_2$  (400-700nm) coating at 0° AOI.

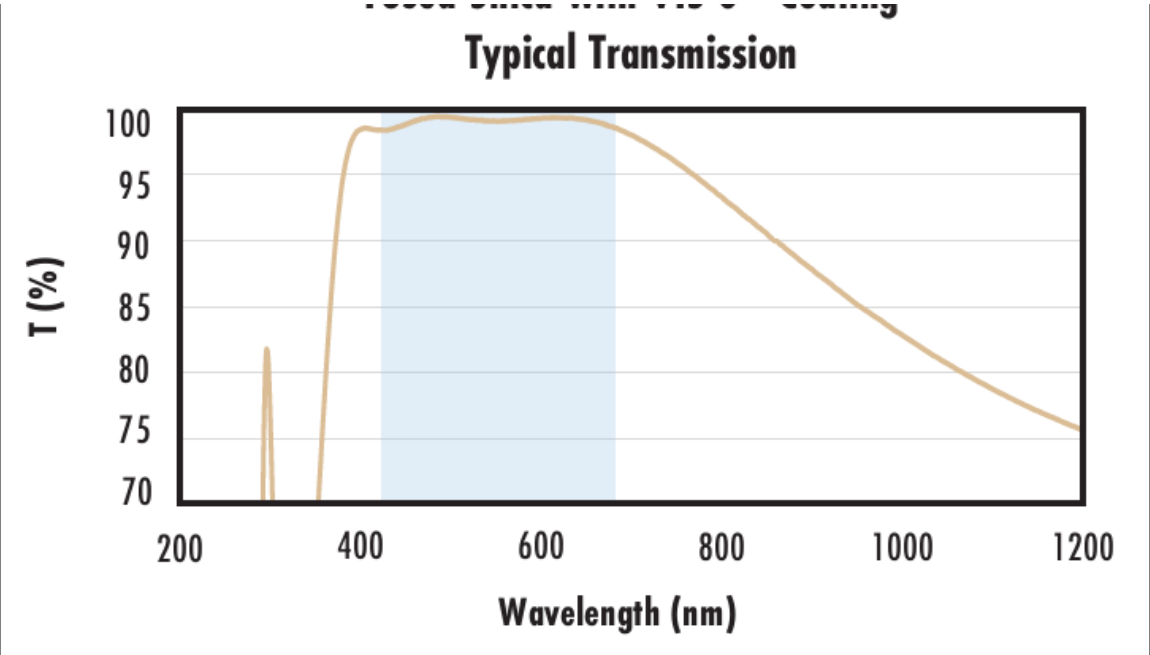
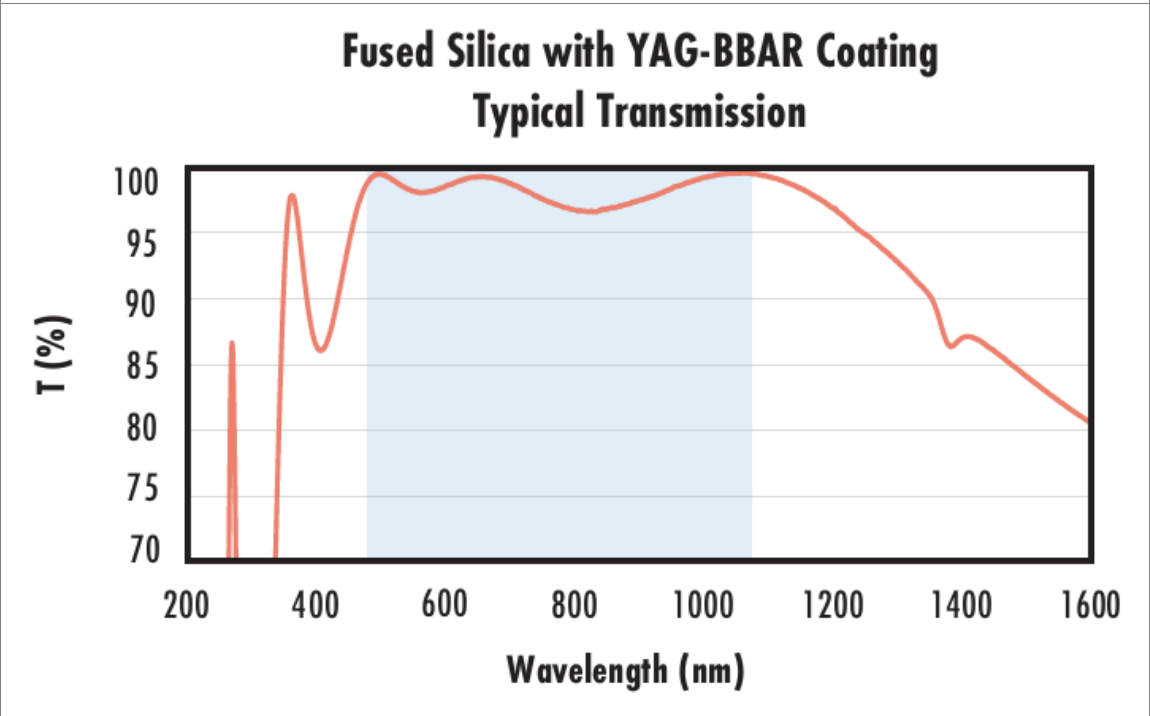
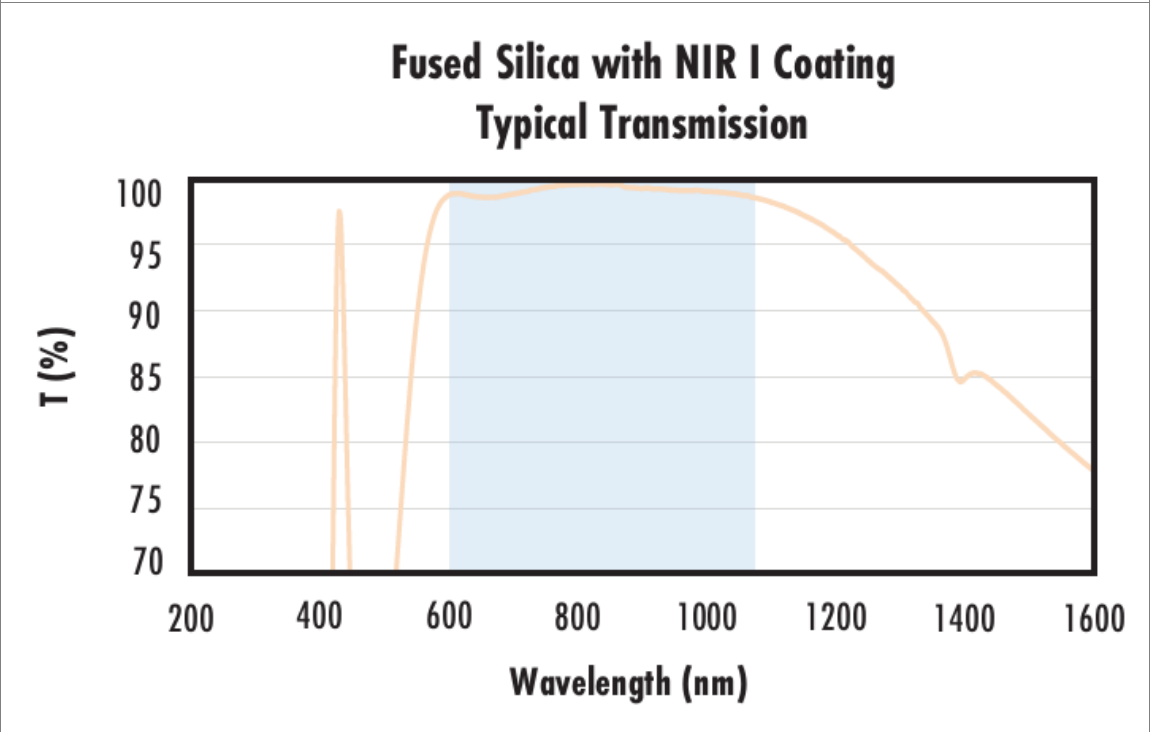
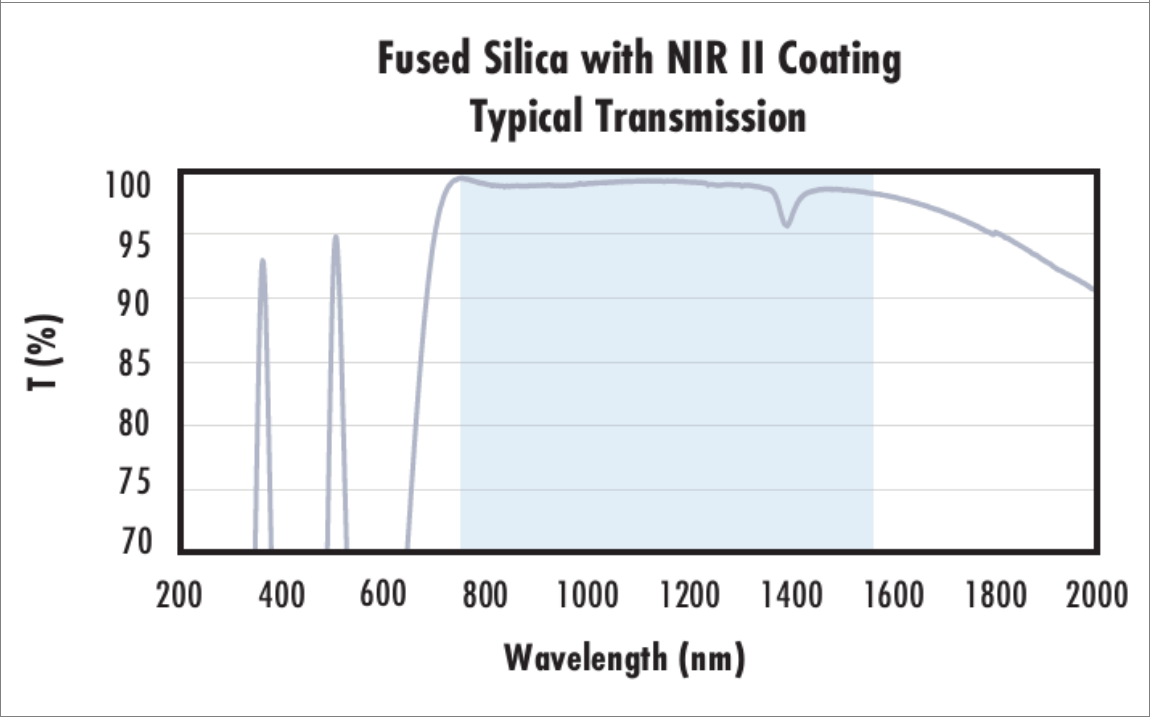
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

| Wavelength (nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <div><div><div>Fused Silica with UV-AR Coating</div><div>Typical Transmission</div><div></div></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>     |  |  |
| <div><div><div>Fused Silica with UV-VIS Coating</div><div>Typical Transmission</div><div></div></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><div>Fused Silica with VIS-EXT Coating</div><div>Typical Transmission</div><div></div></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><div>Fused Silica with VIS-NIR Coating</div><div>Typical Transmission</div><div></div></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><div>Fused Silica with VIS 0° Coating</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |

|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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><p><math>R_{avg} \leq 0.4\% @ 425 - 675nm</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>                                                                                                          |
| <div><div>Fused Silica with YAG-BBAR Coating<br/>Typical Transmission</div></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><p><math>R_{abs} \leq 0.25\% @ 532nm</math><br/><math>R_{abs} \leq 0.25\% @ 1064nm</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100nm</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>           |
| <div><div>Fused Silica with NIR I Coating<br/>Typical Transmission</div></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><p><math>R_{avg} \leq 0.5\% @ 600 - 1050nm</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>                                                                                                       |
| <div><div>Fused Silica with NIR II Coating<br/>Typical Transmission</div></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><p><math>R_{abs} \leq 1.5\% @ 750 - 800nm</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550nm</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> |