

**TECHSPEC®**

## Doppelkonvexe Linse aus UV-Quarzglas, 12 mm D. x 75 mm eff. BW, NIR-II-beschichtet



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#22-187** **4 In Stock**

[Andere Beschichtungen](#)

⊖ 1 ⊕ €145<sup>00</sup>

**+ WARENKORB**

Mengenrabatte	
Stk. 1-5	€145,00 stückpreis
Stk. 6-25	€116,00 stückpreis
Stk. 26-49	€108,00 stückpreis
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⚠ Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

### Produktdetails

Double-Convex Lens **Typ:**

## Physikalische und mechanische Eigenschaften

Durchmesser (mm):  
12.00 +0.0/-0.025

Zentrierung (Bogenminuten):  
<1

Fase:  
Protective as needed

Mittendicke CT (mm):  
2.59 ±0.05

Randdicke ET (mm):  
2.06

Freie Apertur CA (mm):  
11.00

## Optische Eigenschaften

Hintere Brennweite BFL (mm):  
74.11

Effektive Brennweite EFL (mm):  
75.00

Beschichtung:  
NIR II (750-1550nm)

Beschichtungsspezifikation:  
R<sub>abs</sub> ≤1.5% @ 750 - 800nm  
R<sub>abs</sub> ≤1.0% @ 800 - 1550nm  
R<sub>avg</sub> ≤0.7% @ 750 - 1550nm

Substrat:   
Fused Silica (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):  
68.36

Blende:  
6.25

Designwellenlänge Brennweite (nm):  
587.6

Toleranz Brennweite (%):  
±1

Numerische Apertur NA:  
0.08

Wellenlängenbereich (nm):  
750 - 1550

Zerstörschwelle, Referenz:   
8 J/cm<sup>2</sup> @ 1064nm, 10ns

## Konformität mit Standards

RoHS 2015:  
Konform

Konformitätszertifikat:  
Anzeigen

Reach 235:  
Konform

## Gewünschte Spezifikationen nicht dabei?

Edmund Optics bietet einen umfangreichen kundenspezifischen Fertigungsservice für Optik- und Bildverarbeitungs-komponenten 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

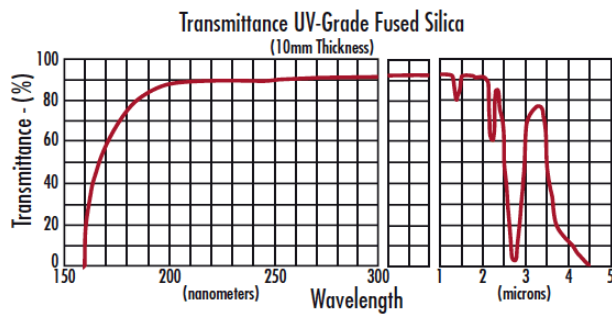
Erfahren Sie mehr über unsere [kundenspezifischen Fertigungsmöglichkeiten](#) oder senden Sie [hier](#) eine Anfrage.

## Produktdetails

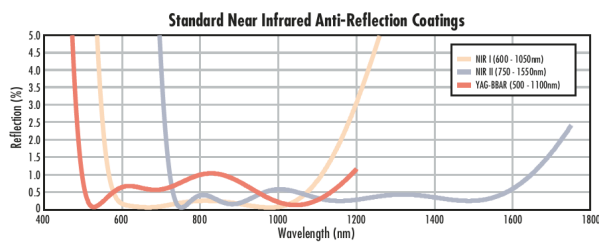
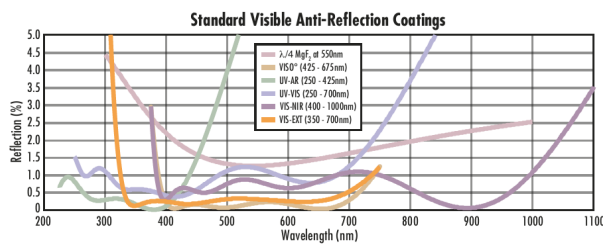
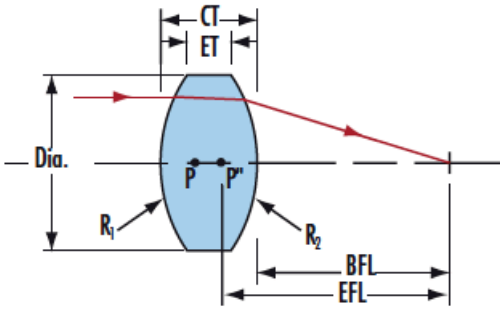
- Ideal für die Bildgebung
- Minimieren Aberrationen wie sphärische Aberration oder Koma
- Präzises Substrat aus Quarzglas

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

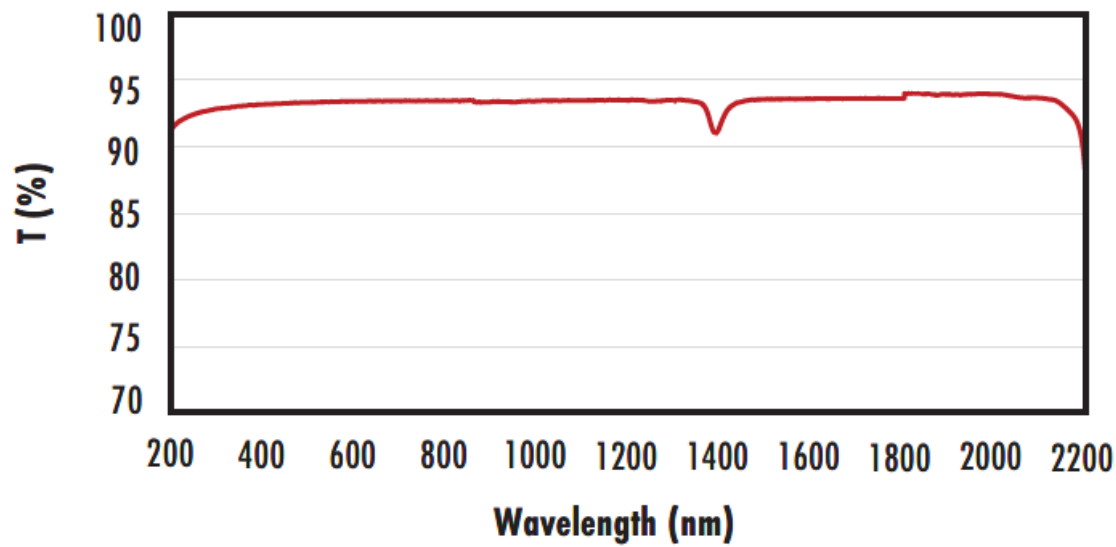


UV FS Transmission Curve



### FUSED SILICA

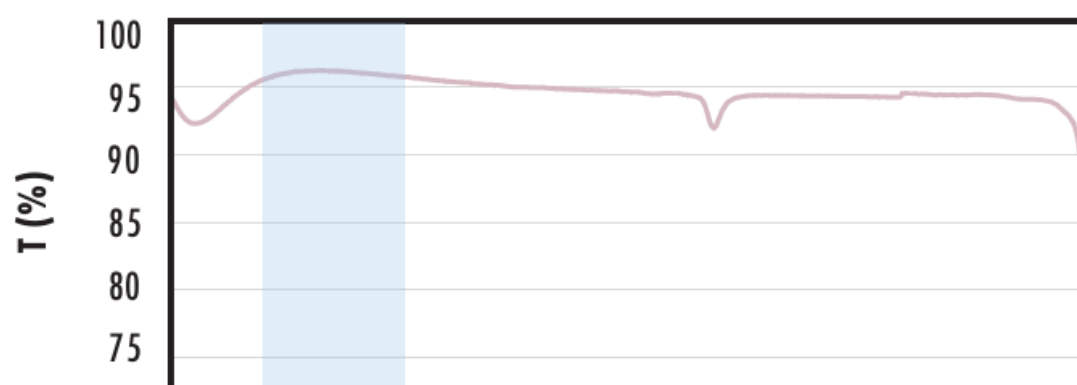
#### Uncoated Fused Silica Typical Transmission



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



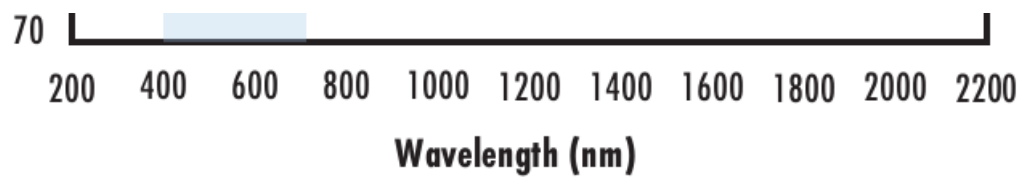
Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

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

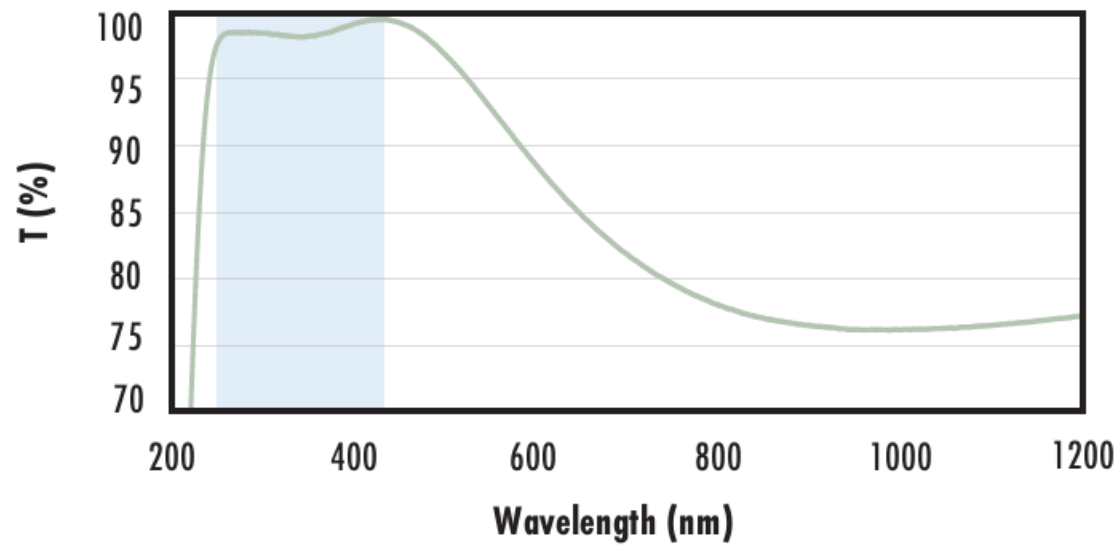
$R_{avg} \leq 1.75\% @ 400 - 700nm$  (N-BK7)

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

[Click Here to Download Data](#)



### Fused Silica with UV-AR Coating Typical Transmission



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

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

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

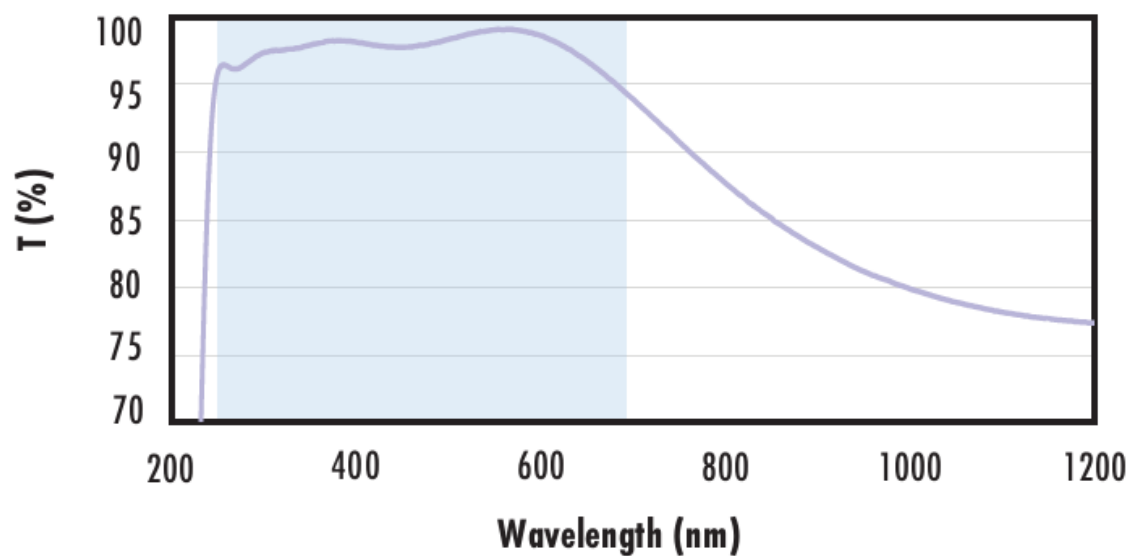
$$R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}$$

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

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

[Click Here to Download Data](#)

### Fused Silica with UV-VIS Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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

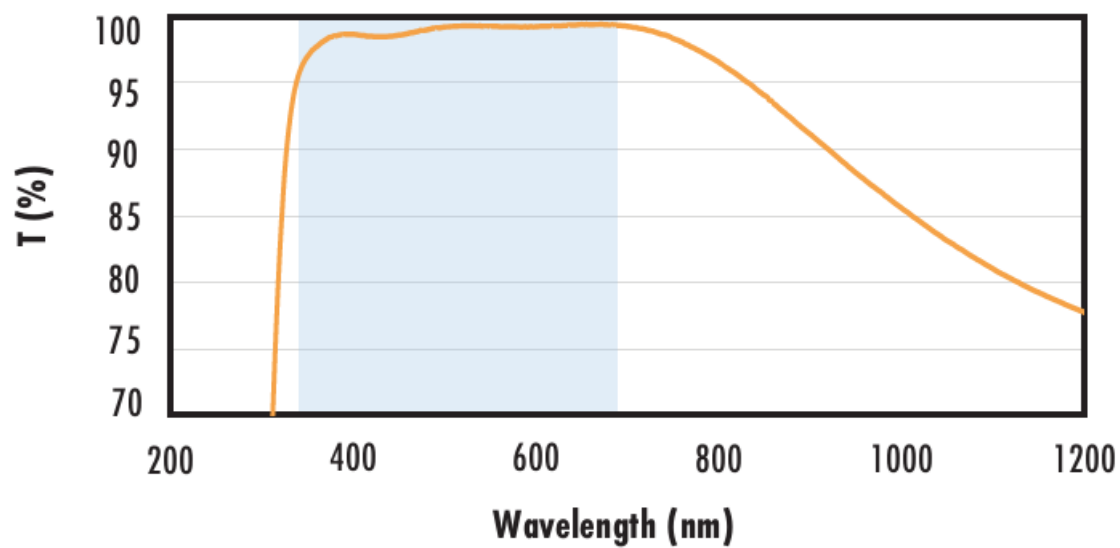
$$R_{abs} \leq 1.0\% \text{ @ } 350 - 450\text{nm}$$

$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$$

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

[Click Here to Download Data](#)

### Fused Silica with VIS-EXT Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

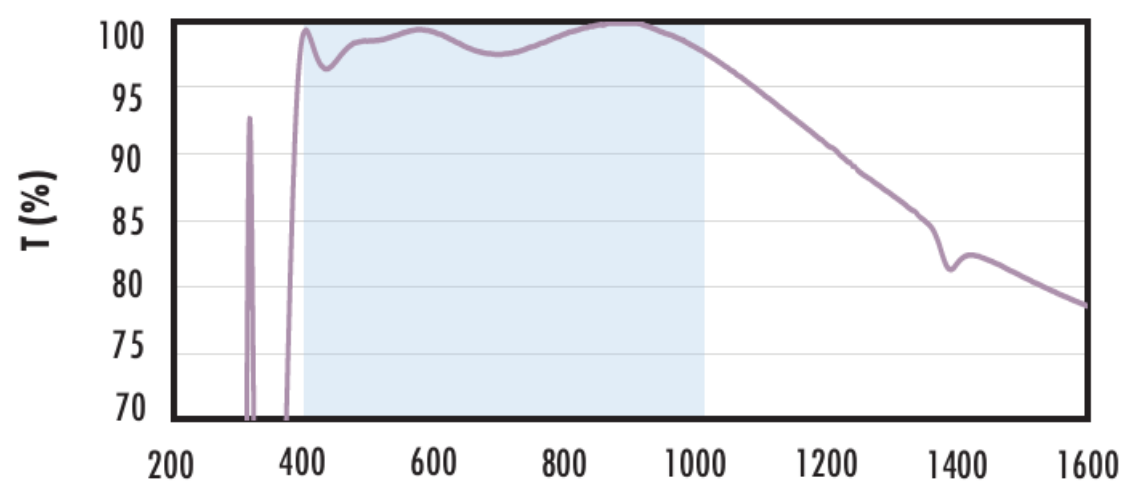
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$$

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

[Click Here to Download Data](#)

### Fused Silica with VIS-NIR Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

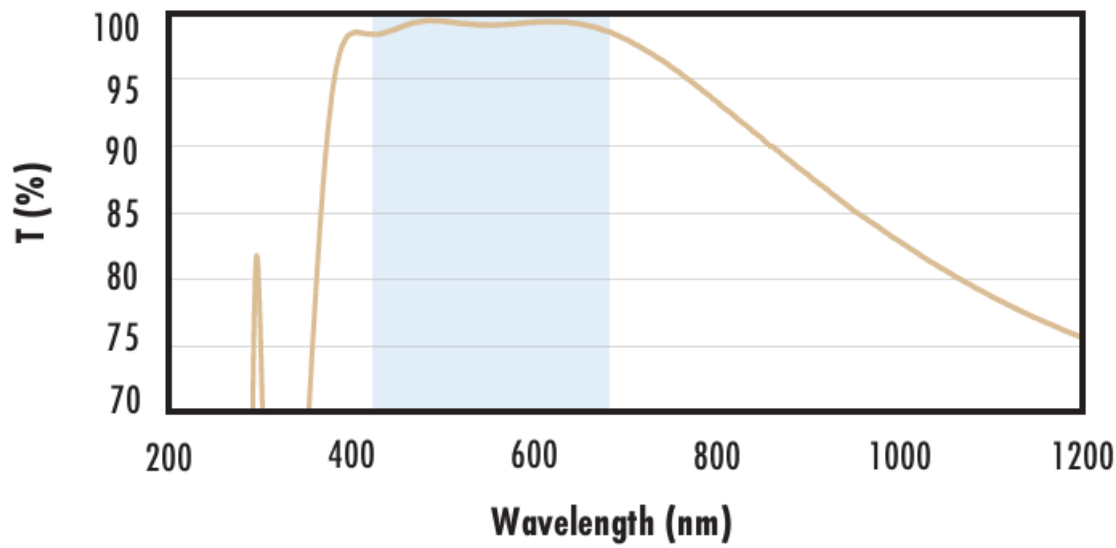
$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

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

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Wavelength (nm)

### Fused Silica with VIS 0° Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

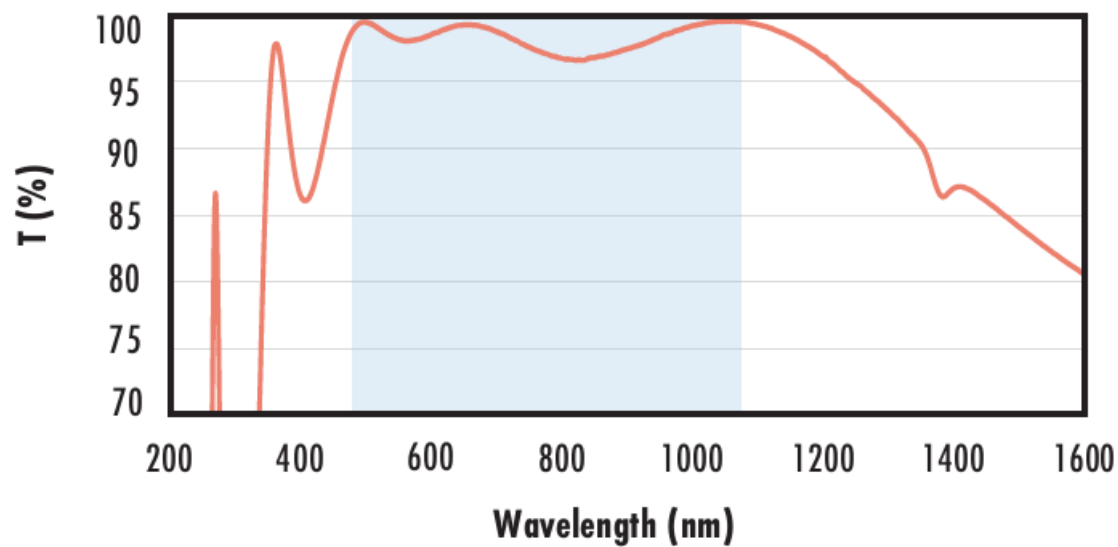
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$$

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

[Click Here to Download Data](#)

### Fused Silica with YAG-BBAR Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$$R_{abs} \leq 0.25\% @ 532\text{nm}$$

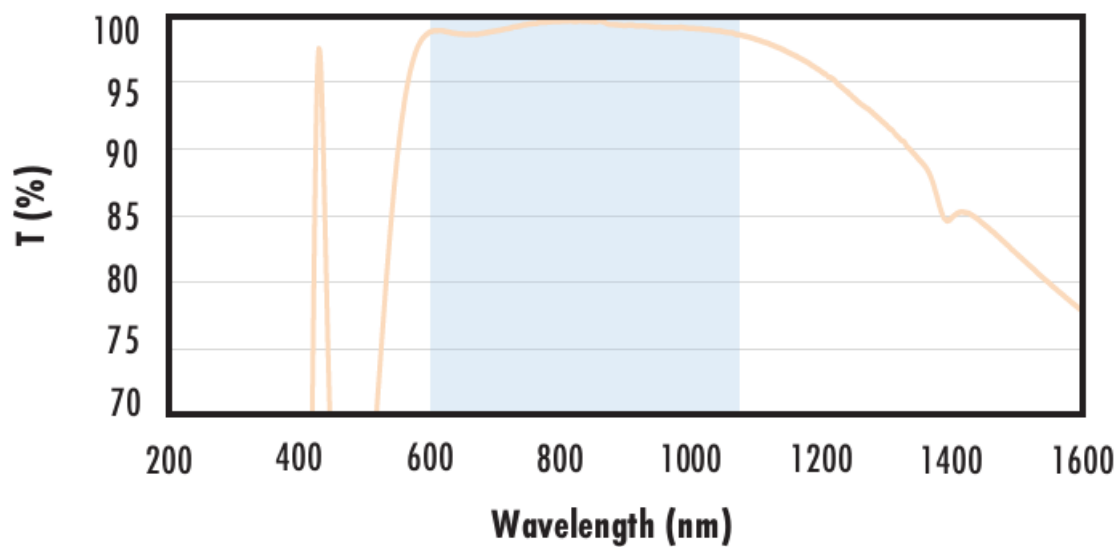
$$R_{abs} \leq 0.25\% @ 1064\text{nm}$$

$$R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$$

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

[Click Here to Download Data](#)

### Fused Silica with NIR I Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.

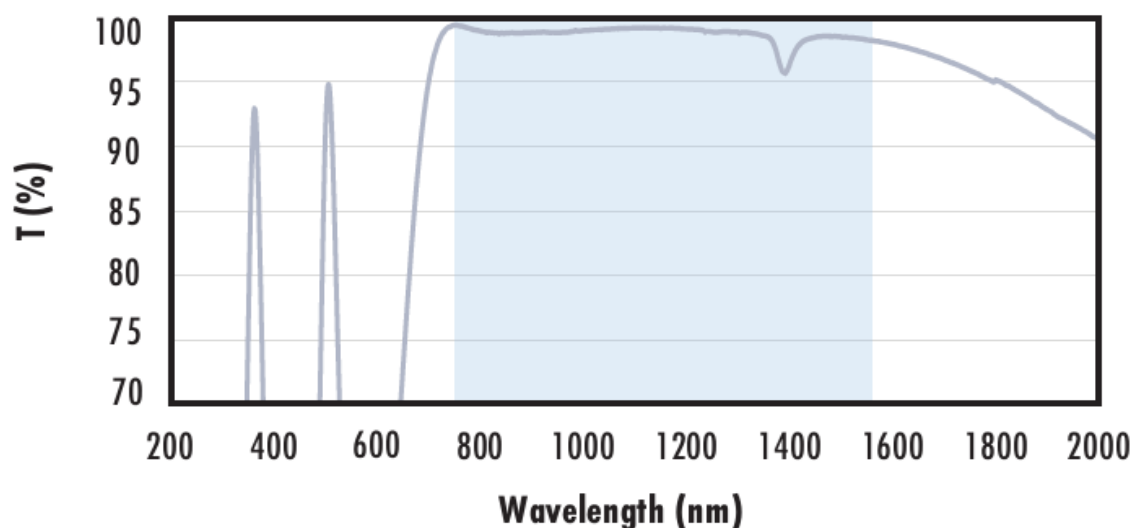
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}$$

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

[Click Here to Download Data](#)

### Fused Silica with NIR II Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.

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

$$R_{abs} \leq 1.5\% @ 750 - 800\text{nm}$$

$$R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}$$

$$R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}$$

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

[Click Here to Download Data](#)

