

TECHSPEC®

Doppelkonvexe Linse aus UV-Quarzglas, 18 mm D. x 20 mm eff. BW, UV-VIS-beschichtet



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#48-840** **1 In Stock**

[Andere Beschichtungen](#)

1 €162⁰⁰

+ WARENKORB

Mengenrabatte	
Stk. 1-5	€162,00 stückpreis
Stk. 6-25	€130,00 stückpreis
Stk. 26-49	€121,00 stückpreis
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! Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

Produktdetails

Double-Convex Lens **Typ:**

Physikalische und mechanische Eigenschaften

Durchmesser (mm):
18.00 +0.0/-0.025

Zentrierung (Bogenminuten):
<1

Fase:
Protective as needed

Mittendicke CT (mm):
7.64 ±0.10

Randdicke ET (mm):
2.50

Freie Apertur CA (mm):
17.00

Optische Eigenschaften

Hintere Brennweite BFL (mm):
17.18

Effektive Brennweite EFL (mm):
20.00

Beschichtung:
UV-VIS (250-700nm)

Beschichtungsspezifikation:
R_{abs} ≤1.0% @ 350 - 450nm
R_{avg} ≤1.5% @ 250 - 700nm

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 R₁=R₂ (mm):
17.05

Blende:
1.11

Designwellenlänge Brennweite (nm):
587.6

Toleranz Brennweite (%):
±1

Numerische Apertur NA:
0.45

Wellenlängenbereich (nm):
250 - 700

Zerstörschwelle, Referenz:
3 J/cm² @ 355nm, 10ns
5 J/cm² @ 532nm, 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

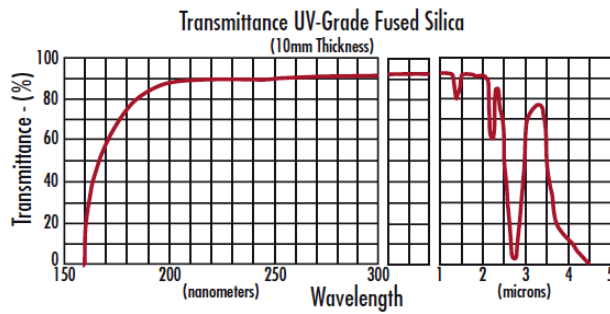
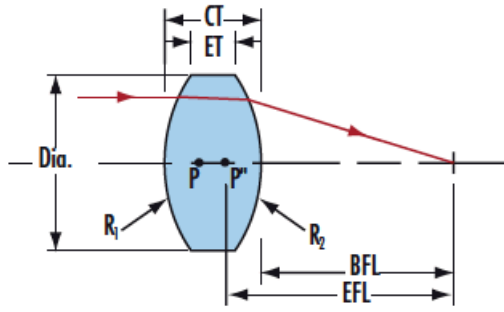
Erfahren Sie mehr über unsere [kundenspezifischen Fertigungsmöglichkeiten](#) oder senden Sie [hier](#) eine Anfrage.

Produktdetails

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

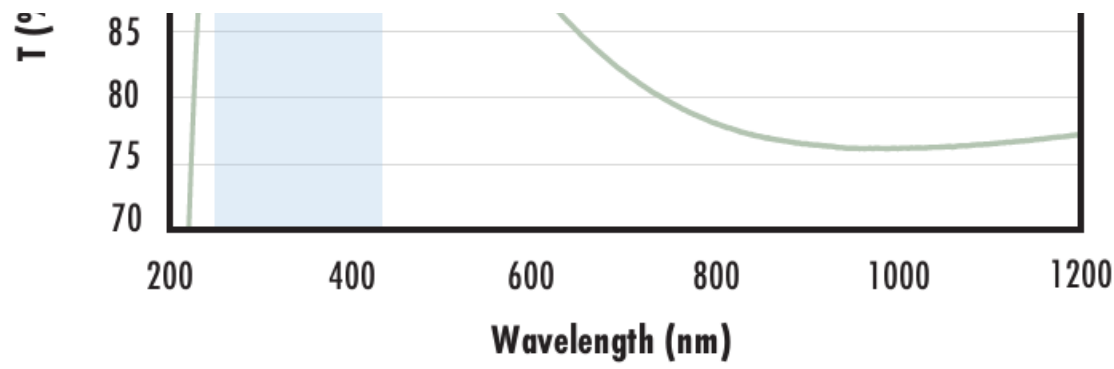
Die TECHSPEC® doppelkonvexen Linsen (DCX-Linsen) aus UV-Quarzglas, auch bikonvexe Linsen genannt, haben zwei positive, symmetrische Oberflächen mit gleichem Krümmungsradius auf beiden Seiten. Die Linsen werden generell für Bildgebungen mit endlichem Abstand und Konjugiertenverhältnis (Verhältnis zwischen 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	
<p style="text-align: center;">Uncoated Fused Silica Typical Transmission</p> <p>The graph shows the typical transmission of a 3mm thick, uncoated fused silica window. The y-axis is Transmittance T (%) from 70 to 100. The x-axis is Wavelength (nm) from 200 to 2200. The transmission is high, around 95%, across the entire range, with a small dip at approximately 1400 nm.</p>	<p>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</p> <p style="text-align: center;">Click Here to Download Data</p>
<p style="text-align: center;">Fused Silica with MgF₂ Coating Typical Transmission</p> <p>The graph shows the typical transmission of a 3mm thick fused silica window with MgF₂ (400-700nm) coating at 0° AOI. The y-axis is Transmittance T (%) from 70 to 100. The x-axis is Wavelength (nm) from 200 to 2200. A blue shaded region from 400 nm to 700 nm indicates the coating design wavelength range. The transmission is high, around 95%, across the entire range, with a small dip at approximately 1400 nm.</p>	<p>Typical transmission of a 3mm thick fused silica window with MgF₂ (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p style="text-align: center;">$R_{avg} \leq 1.75\% @ 400 - 700\text{nm} \text{ (N-BK7)}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;">Click Here to Download Data</p>
<p style="text-align: center;">Fused Silica with UV-AR Coating Typical Transmission</p> <p>The graph shows the typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI. The y-axis is Transmittance T (%) from 90 to 100. The x-axis is Wavelength (nm) from 200 to 2200. A blue shaded region from 250 nm to 425 nm indicates the coating design wavelength range. The transmission is high, around 95%, across the entire range, with a small dip at approximately 1400 nm.</p>	<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 style="text-align: center;">$R_{avg} \leq 1.0\% @ 250 - 425\text{nm}$</p>

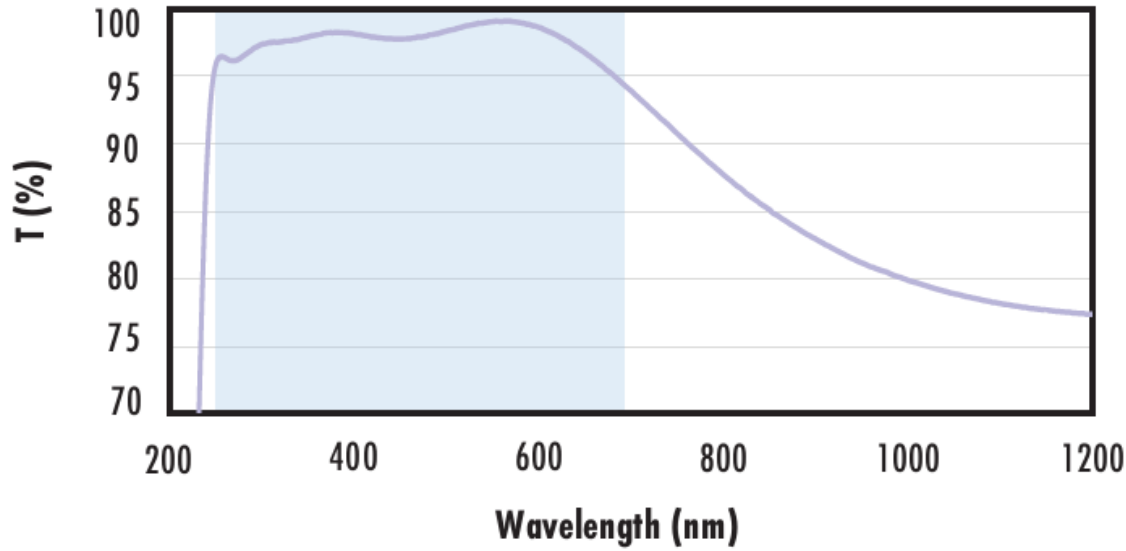


$R_{abs} \leq 0.75\% @ 250 - 425nm$
 $R_{avg} \leq 0.75\% @ 250 - 425nm$
 $R_{avg} \leq 0.5\% @ 370 - 420nm$

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.

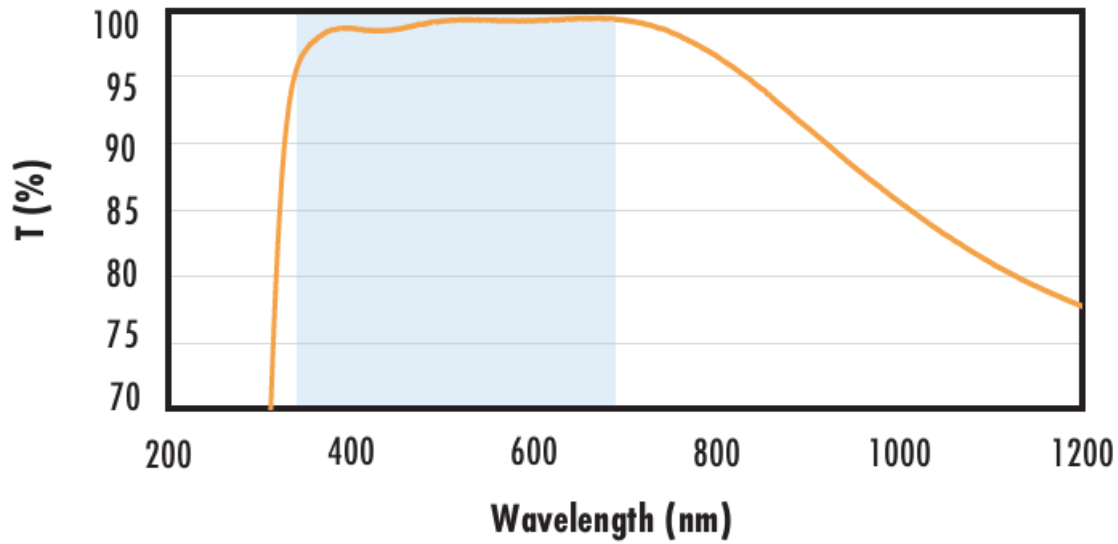
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 1.0\% @ 350 - 450nm$
 $R_{avg} \leq 1.5\% @ 250 - 700nm$

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.

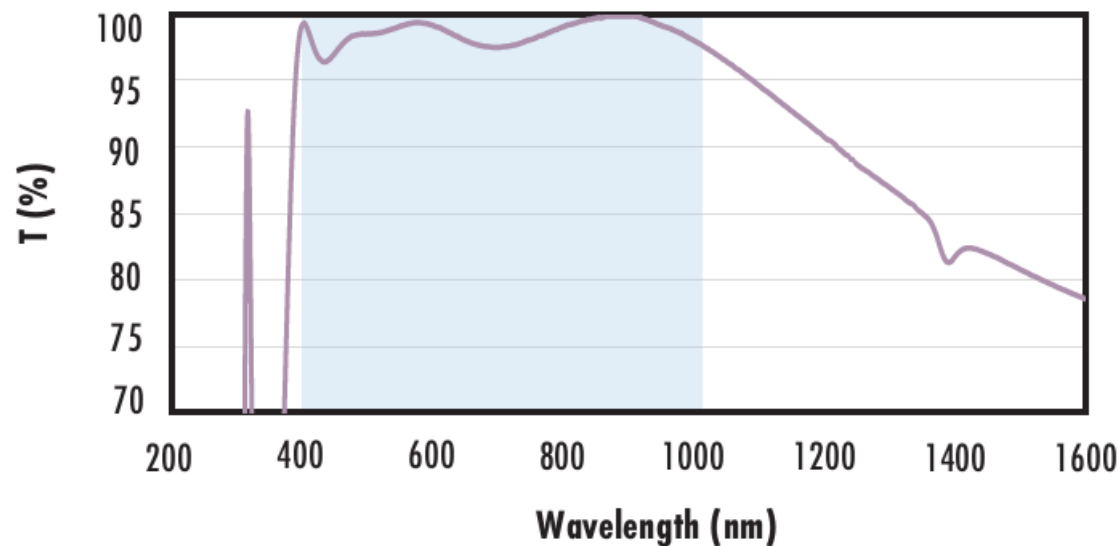
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

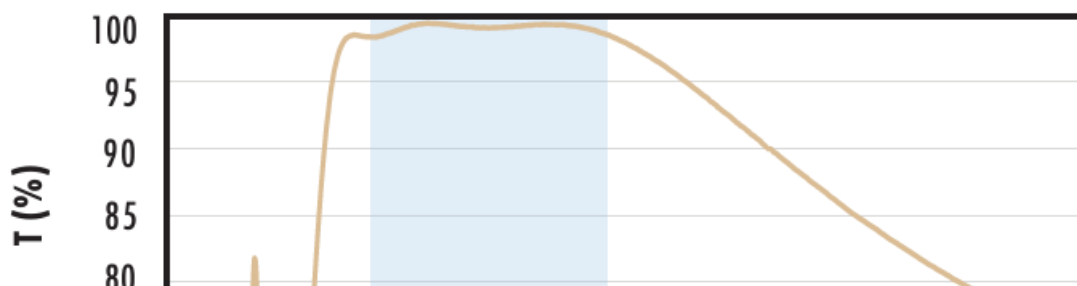
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 880nm$
 $R_{avg} \leq 1.25\% @ 400 - 870nm$
 $R_{avg} \leq 1.25\% @ 890 - 1000nm$

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

[Click Here to Download Data](#)

Fused Silica with VIS 0° Coating Typical Transmission

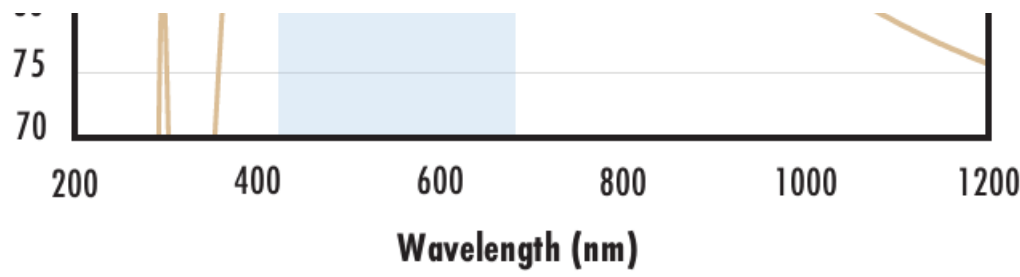


Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

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

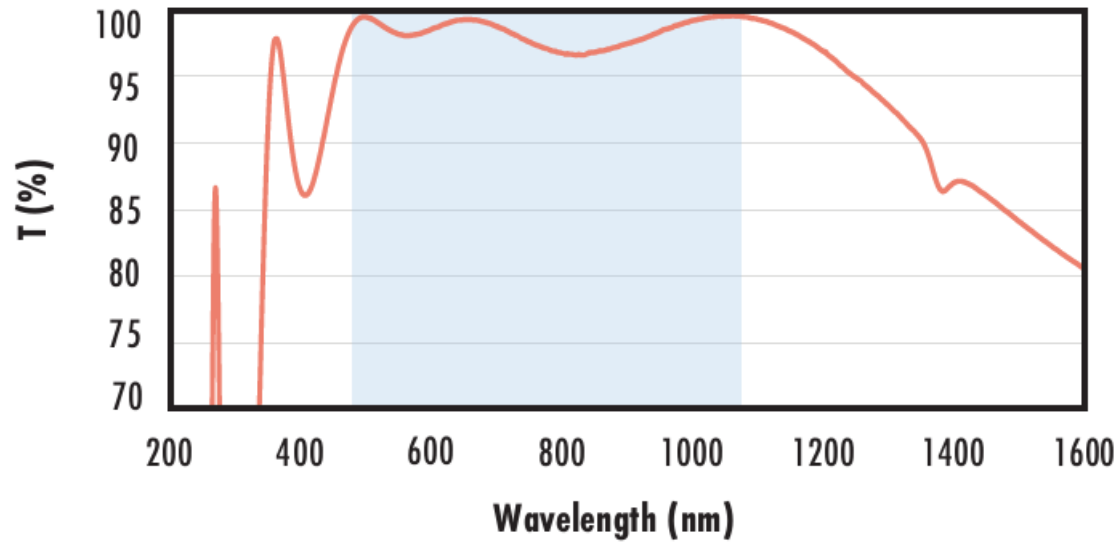
$R_{avg} \leq 0.4\% @ 425 - 675nm$

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.

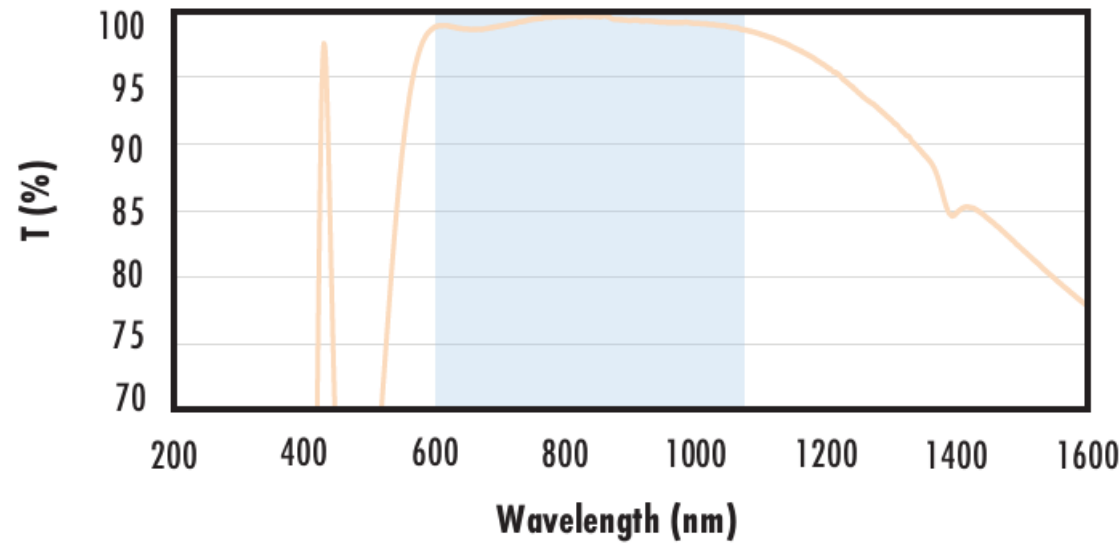
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 532nm$
 $R_{abs} \leq 0.25\% @ 1064nm$
 $R_{avg} \leq 1.0\% @ 500 - 1100nm$

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.

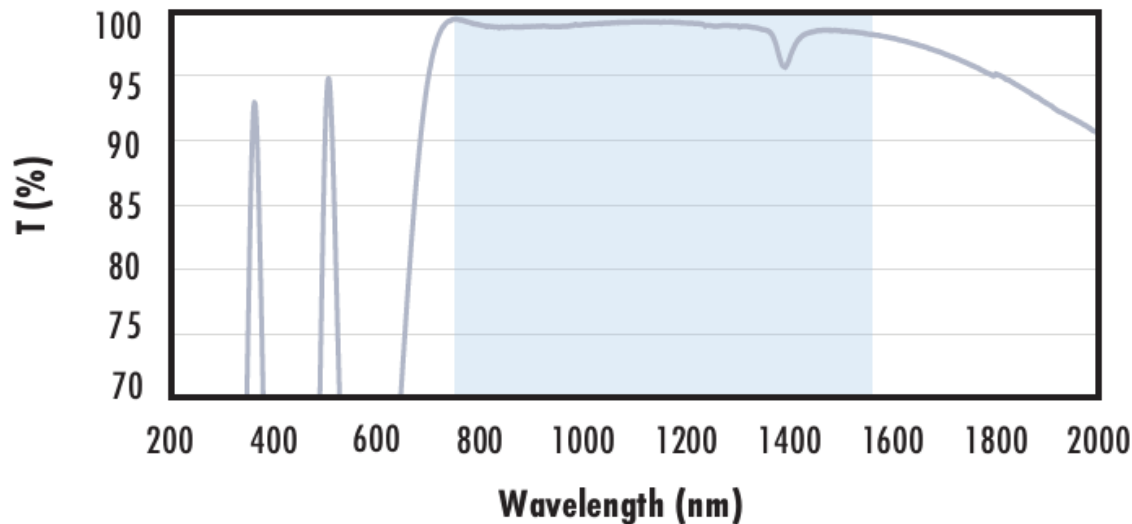
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

$R_{abs} \leq 1.5\% @ 750 - 800nm$
 $R_{abs} \leq 1.0\% @ 800 - 1550nm$
 $R_{avg} \leq 0.7\% @ 750 - 1550nm$

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

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Kompatible Halterungen