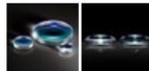


TECHSPEC®

Doppelkonvexe Linse aus UV-Quarzglas, 12 mm D. x 45 mm eff. BW, unbeschichtet



UV Fused Silica Double-Convex (DCX) Lenses



Produkt **#48-038** **20+ In Stock**

[Andere Beschichtungen](#)

- 1 + €123.⁰⁰

+ WARENKORB

Mengenrabatte	
Stk. 1-5	€123,00 stückpreis
Stk. 6-25	€98,00 stückpreis
Stk. 26-49	€93,00 stückpreis
Need More?	Angebotsanfrage

ⓘ 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):
2.99 ±0.05

Randdicke ET (mm):
2.10

Freie Apertur CA (mm):
11.00

Optische Eigenschaften

Hintere Brennweite BFL (mm):
43.96

Effektive Brennweite EFL (mm):
45.00

Beschichtung:
Uncoated

Beschichtungsspezifikation:
Uncoated

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):
40.79

Blende:
3.75

Designwellenlänge Brennweite (nm):
587.6

Toleranz Brennweite (%):
±1

Numerische Apertur NA:
0.13

Wellenlängenbereich (nm):
200 - 2200

Konformität mit Standards

RoHS 2015:
[Konform](#)

Reach 219:
[Konform](#)

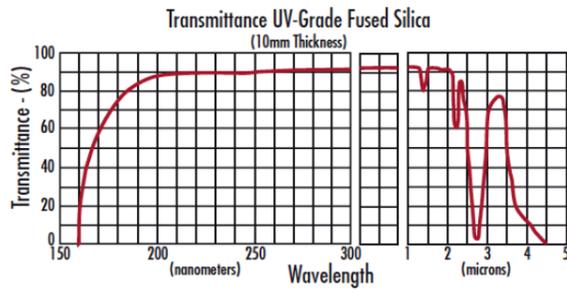
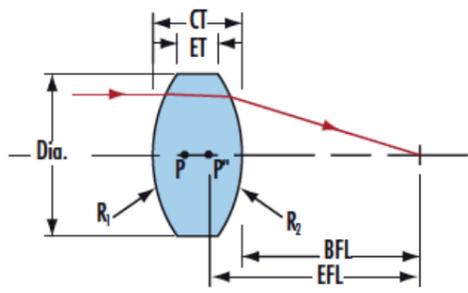
Konformitätszertifikat:
[Anzeigen](#)

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.

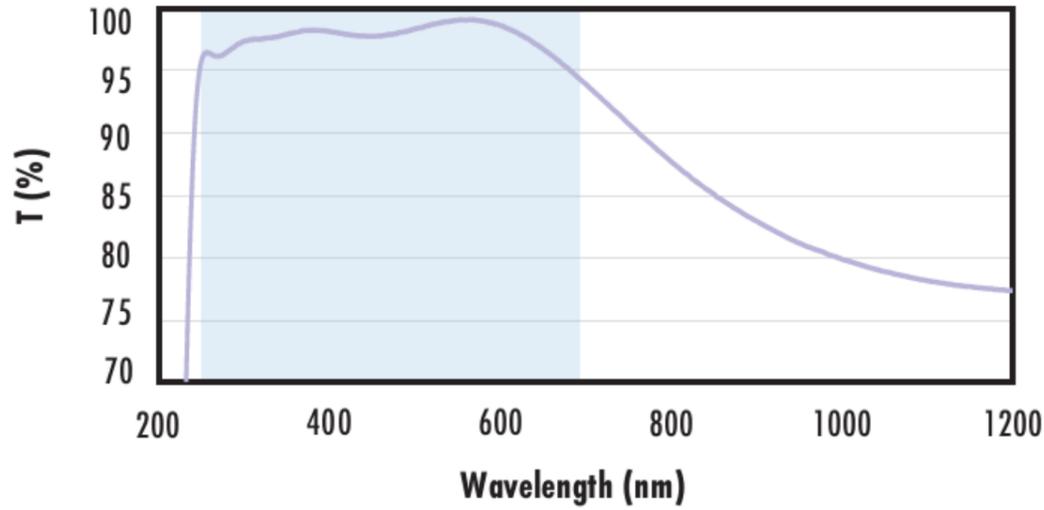
Technische Informationen



UV FS Transmission Curve

FUSED SILICA	
<h3>Uncoated Fused Silica Typical Transmission</h3> <p>The graph shows transmission from 70% to 100% on the y-axis and wavelength from 200 to 2200 nm on the x-axis. The transmission is consistently high, around 93-95%, 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>Click Here to Download Data</p>
<h3>Fused Silica with MgF₂ Coating Typical Transmission</h3> <p>The graph shows transmission from 70% to 100% on the y-axis and wavelength from 200 to 2200 nm on the x-axis. A blue shaded region from 400 to 700 nm indicates the coating design range. Transmission is high (93-95%) with a dip at 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>$R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<h3>Fused Silica with UV-AR Coating Typical Transmission</h3> <p>The graph shows transmission from 70% to 100% on the y-axis and wavelength from 200 to 1200 nm on the x-axis. A blue shaded region from 250 to 425 nm indicates the coating design range. Transmission is near 100% in the UV region and decreases in the visible and IR regions.</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>$R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$ $R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$ $R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>

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:

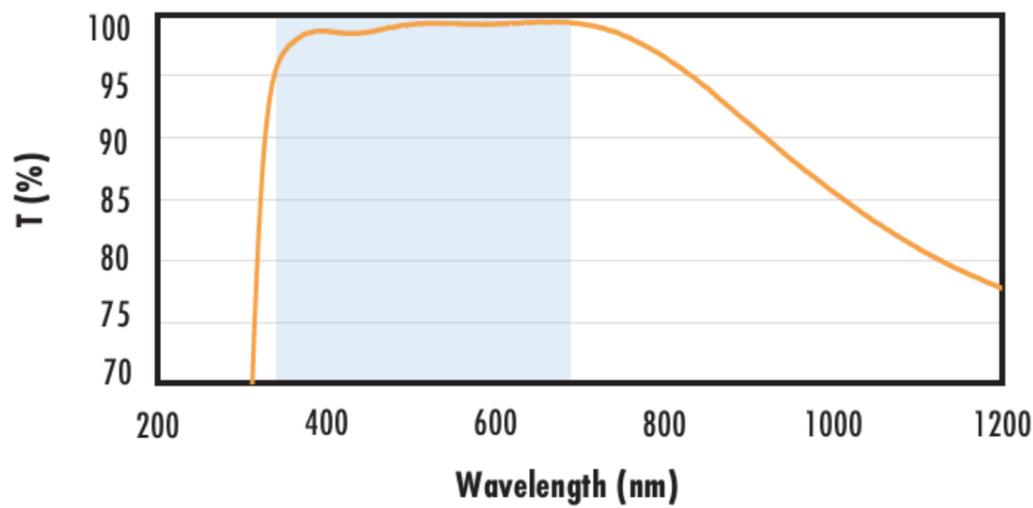
$$R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$$

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

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.

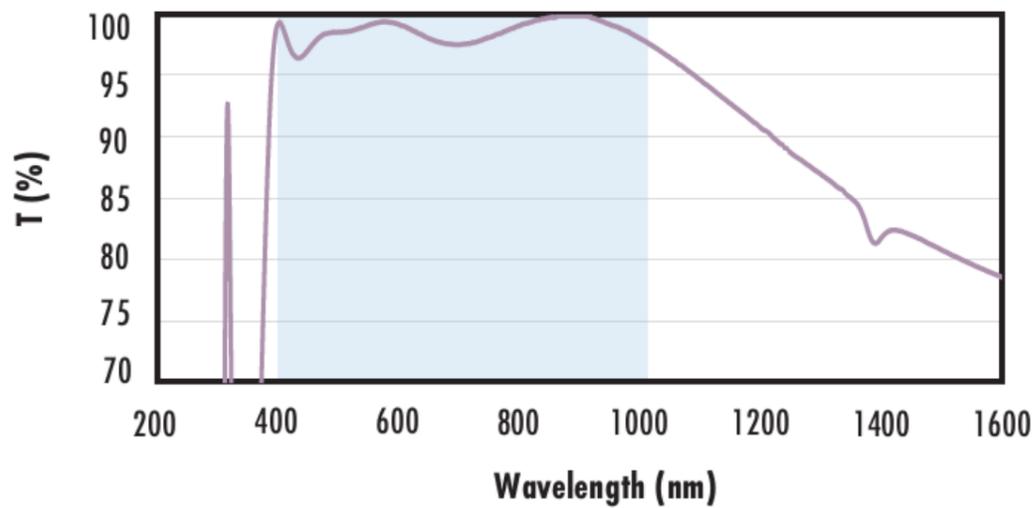
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

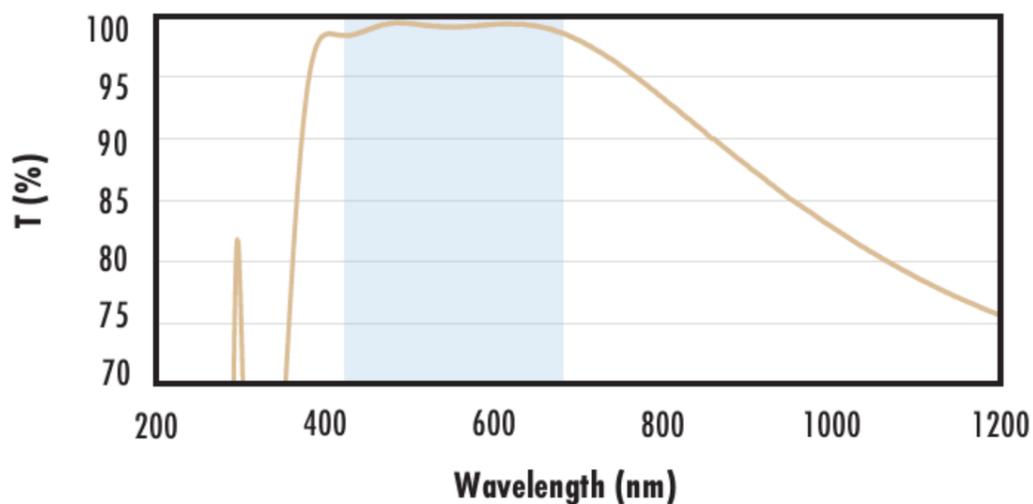
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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

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:

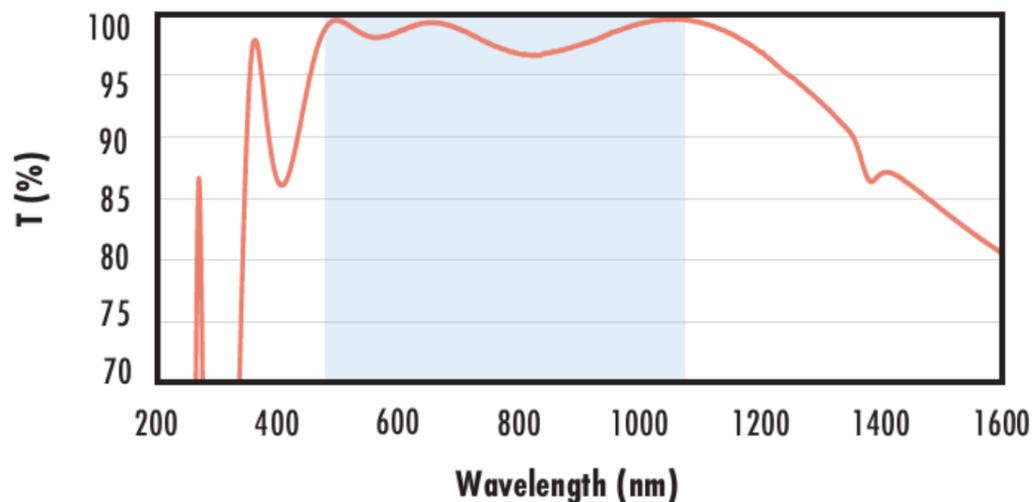
$$R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$$

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:

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

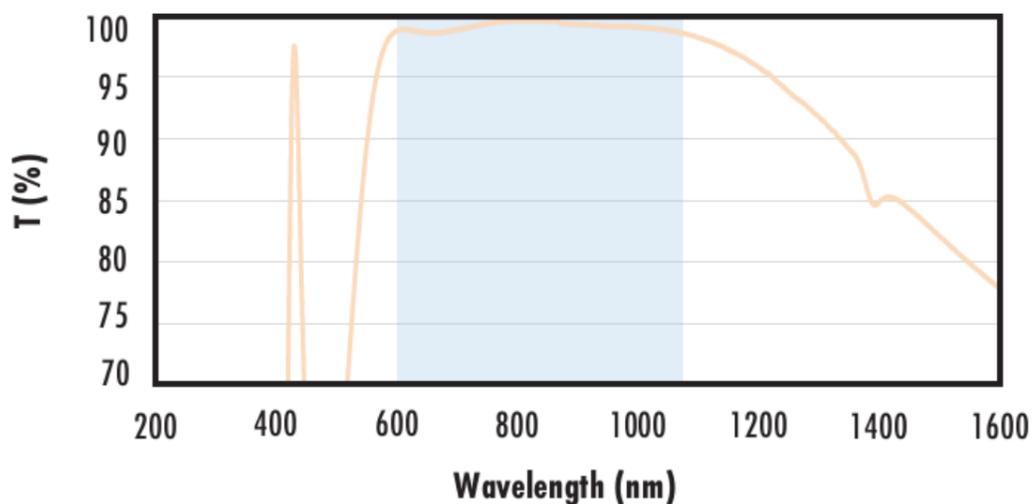
$$R_{abs} \leq 0.25\% @ 1064nm$$

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

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.

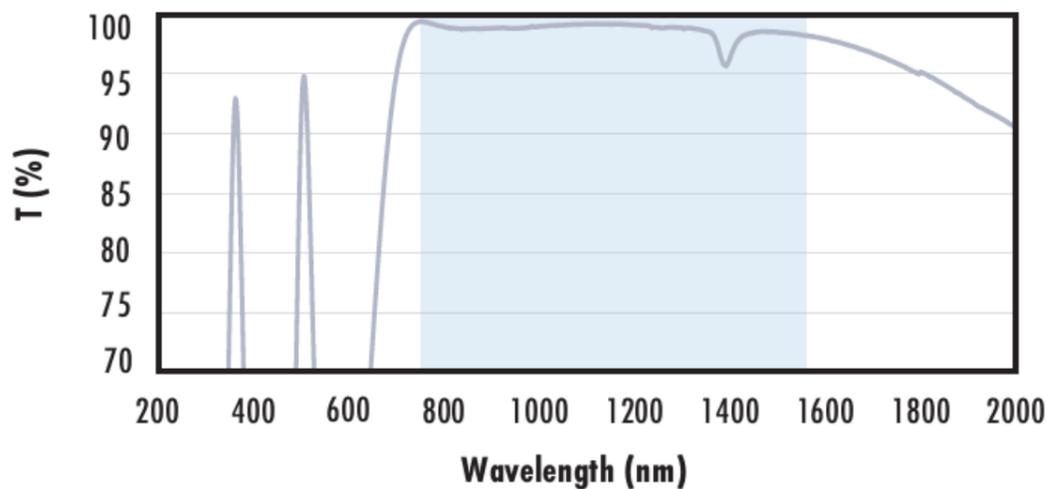
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

[Click Here to Download Data](#)

Kundenspezifische Produkte

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.

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