

TECHSPEC®

Doppelkonvexe Linse, 9 mm D. x 13,5 mm BW, unbeschichtet



Produkt **#32-016** 20+ In Stock

Andere Beschichtungen

-

1

+

€33<sup>,25</sup>

+ WARENKORB

| Mengenrabatte |                                 |
|---------------|---------------------------------|
| Stk. 1-9      | €33,25 stückpreis               |
| Stk. 10-24    | €30,00 stückpreis               |
| Stk. 25-99    | €26,50 stückpreis               |
| Need More?    | <a href="#">Angebotsanfrage</a> |

!

 Preise exklusiv der geltenden Mehrwertsteuer und Abgaben

Downloadbereich

Produktdetails

Double-Convex Lens

Typ:

Physikalische und mechanische Eigenschaften

|                      |                             |
|----------------------|-----------------------------|
| 9.00 +0.0/-0.025     | Durchmesser (mm):           |
| <1                   | Zentrierung (Bogenminuten): |
| Protective as needed | Fase:                       |
| 2.75                 | Mittendicke CT (mm):        |
| ±0.05                | Toleranz Mittendicke (mm):  |
| 1.20                 | Randdicke ET (mm):          |
| 8.1                  | Freie Apertur CA (mm):      |

Optische Eigenschaften

|            |                                             |
|------------|---------------------------------------------|
| 12.56      | Hintere Brennweite BFL (mm):                |
| 13.50      | Effektive Brennweite EFL (mm):              |
| Uncoated   | Beschichtung:                               |
| N-BK7      | Substrat: <div></div>                       |
| 40-20      | Oberflächenqualität:                        |
| 1.5λ       | Power (P-V) @ 632,8 nm:                     |
| λ/4        | Unregelmäßigkeit (P-V) @ 632,8 nm:          |
| 13.46      | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 1.5        | Blende:                                     |
| 587.6      | Designwellenlänge Brennweite (nm):          |
| ±1         | Toleranz Brennweite (%):                    |
| 0.33       | Numerische Apertur NA:                      |
| 350 - 2200 | Wellenlängenbereich (nm):                   |

Konformität mit Standards

|          |                         |
|----------|-------------------------|
| Konform  | RoHS 2015:              |
| Anzeigen | Konformitätszertifikat: |
| Konform  | Reach 235:              |

## Produktdetails

- Ideal für die Bildgebung
- Minimieren Aberrationen wie sphärische Aberration oder Koma
- [DCX-Linsen aus UV-Quarzglas](#) sind ebenfalls verfügbar
- Antireflexionsbeschichtungen erhältlich: [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#) und [YAG-BBAR](#)

Die TECHSPEC® unbeschichteten doppelkonvexen Linsen (DCX-Linsen), 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. Die TECHSPEC® unbeschichteten doppelkonvexen Linsen sind mit verschiedenen Substraten und verschiedenen Beschichtungsoptionen für VIS und NIR verfügbar.

## Technische Informationen



N-BK7

Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

[Click Here to Download Data](#)

N-BK7 with MgF<sub>2</sub> Coating  
Typical Transmission



Typical transmission of a 3mm thick N-BK7 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:

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

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

[Click Here to Download Data](#)

N-BK7 with VIS-EXT Coating  
Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

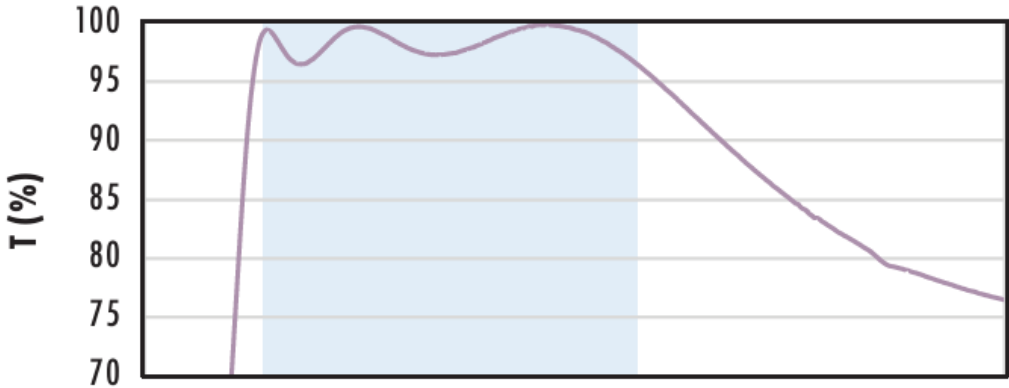
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

N-BK7 with VIS-NIR Coating  
Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

$$\begin{aligned} R_{abs} &\leq 0.25\% \text{ @ } 880\text{nm} \\ R_{avg} &\leq 1.25\% \text{ @ } 400 - 870\text{nm} \\ R_{avg} &\leq 1.25\% \text{ @ } 890 - 1000\text{nm} \end{aligned}$$

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

[Click Here to Download Data](#)

|                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>2004006008001000120014001600</div> <div>Wavelength (nm)</div>                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <div><div>N-BK7 with VIS 0° Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div></div></div><div>Wavelength (nm)</div></div>                                                             | <div>Typical transmission of a 3mm thick N-BK7 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>R<sub>avg</sub> ≤ 0.4% @ 425 - 675nm</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>N-BK7 with YAG-BBAR Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div><div>1400</div><div>1600</div></div></div><div>Wavelength (nm)</div></div>                             | <div>Typical transmission of a 3mm thick N-BK7 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>R<sub>abs</sub> ≤ 0.25% @ 532nm<br/>R<sub>abs</sub> ≤ 0.25% @ 1064nm<br/>R<sub>avg</sub> ≤ 1.0% @ 500 - 1100nm</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>N-BK7 with NIR I Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div><div>1400</div><div>1600</div></div></div><div>Wavelength (nm)</div></div>                                | <div>Typical transmission of a 3mm thick N-BK7 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>R<sub>avg</sub> ≤ 0.5% @ 600 - 1050nm</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>N-BK7 with NIR II Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100</div><div>95</div><div>90</div><div>85</div><div>80</div><div>75</div><div>70</div></div><div><div>200</div><div>400</div><div>600</div><div>800</div><div>1000</div><div>1200</div><div>1400</div><div>1600</div><div>1800</div><div>2000</div></div></div><div>Wavelength (nm)</div></div> | <div>Typical transmission of a 3mm thick N-BK7 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>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</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> |

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.

## Kompatible Halterungen

---