

TECHSPEC[®] 9mm Dia. x 9mm FL, MgF₂ Coated, Double-Convex Lens



Stock **#32-019** 20+ In Stock

[Other Coating Options](#)

-

1

+

£32^{.80}

ADD TO CART

Volume Pricing	
Qty 1-9	£32.80 each
Qty 10-24	£29.40 each
Qty 25-99	£26.40 each
Need More?	Request Quote

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General	
Double-Convex Lens	Type:
Physical & Mechanical Properties	

9.00 +0.0/-0.025	Diameter (mm):
<3	Centering (arcmin):
Protective as needed	Bevel:
3.45	Center Thickness CT (mm):
±0.05	Center Thickness Tolerance (mm):
1.60	Edge Thickness ET (mm):
8.1	Clear Aperture CA (mm):
Optical Properties	
7.90	Back Focal Length BFL (mm):
9.00	Effective Focal Length EFL (mm):
MgF ₂ (400-700nm)	Coating:
R _{avg} ≤1.75% @ 400 - 700nm	Coating Specification:
N-SF5	Substrate: ☐
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
11.38	Radius R ₁ =R ₂ (mm):
1.00	f/#:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
0.50	Numerical Aperture NA:
400 - 700	Wavelength Range (nm):
10 J/cm ² @ 532nm, 10ns	Damage Threshold, By Design: ☐
Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	Reach 219:
View	Certificate of Conformance:

Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), [VIS-NIR](#), and [YAG-BBAR](#)

TECHSPEC® MgF₂ Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging

applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or cancelled due to the symmetric lens design. TECHSPEC® MgF₂ Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information



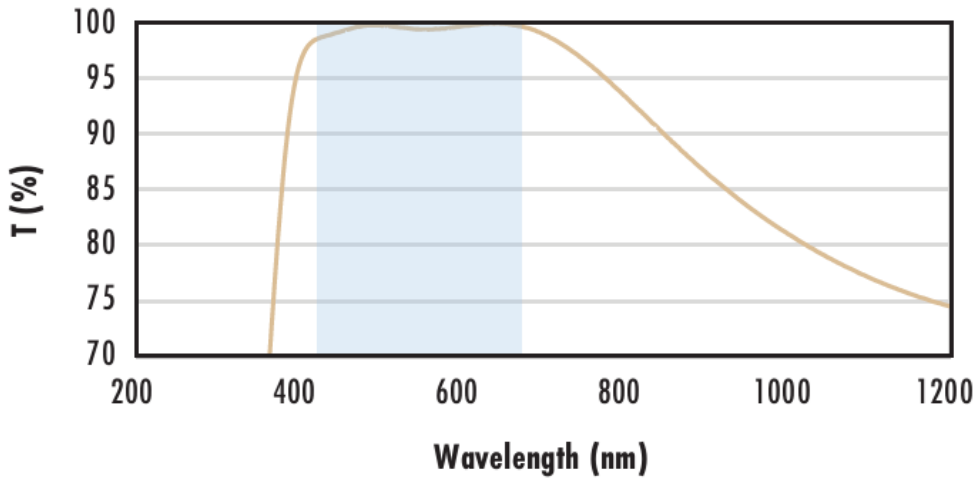
N-BK7																									
Uncoated N-BK7 Typical Transmission <table border="1"><caption>Uncoated N-BK7 Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmittance T (%)</th></tr></thead><tbody><tr><td>350</td><td>70</td></tr><tr><td>400</td><td>92</td></tr><tr><td>600</td><td>92</td></tr><tr><td>800</td><td>92</td></tr><tr><td>1000</td><td>92</td></tr><tr><td>1200</td><td>92</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>92</td></tr><tr><td>2000</td><td>91</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>	Wavelength (nm)	Transmittance T (%)	350	70	400	92	600	92	800	92	1000	92	1200	92	1400	92	1600	92	1800	92	2000	91	2200	89	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data
Wavelength (nm)	Transmittance T (%)																								
350	70																								
400	92																								
600	92																								
800	92																								
1000	92																								
1200	92																								
1400	92																								
1600	92																								
1800	92																								
2000	91																								
2200	89																								
N-BK7 with MgF₂ Coating Typical Transmission <table border="1"><caption>N-BK7 with MgF₂ Coating Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmittance T (%)</th></tr></thead><tbody><tr><td>350</td><td>70</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>96</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1200</td><td>94</td></tr><tr><td>1400</td><td>93</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>91</td></tr><tr><td>2000</td><td>90</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>	Wavelength (nm)	Transmittance T (%)	350	70	400	98	600	98	800	96	1000	95	1200	94	1400	93	1600	92	1800	91	2000	90	2200	89	Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm)	Transmittance T (%)																								
350	70																								
400	98																								
600	98																								
800	96																								
1000	95																								
1200	94																								
1400	93																								
1600	92																								
1800	91																								
2000	90																								
2200	89																								
N-BK7 with VIS-EXT Coating Typical Transmission <table border="1"><caption>N-BK7 with VIS-EXT Coating Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmittance T (%)</th></tr></thead><tbody><tr><td>350</td><td>70</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>95</td></tr><tr><td>1000</td><td>85</td></tr><tr><td>1200</td><td>78</td></tr></tbody></table>	Wavelength (nm)	Transmittance T (%)	350	70	400	98	600	98	800	95	1000	85	1200	78	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: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data										
Wavelength (nm)	Transmittance T (%)																								
350	70																								
400	98																								
600	98																								
800	95																								
1000	85																								
1200	78																								
N-BK7 with VIS-NIR Coating Typical Transmission <table border="1"><caption>N-BK7 with VIS-NIR Coating Typical Transmission Data (Approximate)</caption><thead><tr><th>Wavelength (nm)</th><th>Transmittance (%)</th></tr></thead><tbody><tr><td>350</td><td>85</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>98</td></tr><tr><td>1000</td><td>98</td></tr><tr><td>1200</td><td>85</td></tr></tbody></table>	Wavelength (nm)	Transmittance (%)	350	85	400	98	600	98	800	98	1000	98	1200	85	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: $R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$										
Wavelength (nm)	Transmittance (%)																								
350	85																								
400	98																								
600	98																								
800	98																								
1000	98																								
1200	85																								



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

[Click Here to Download Data](#)

N-BK7 with VIS 0° Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

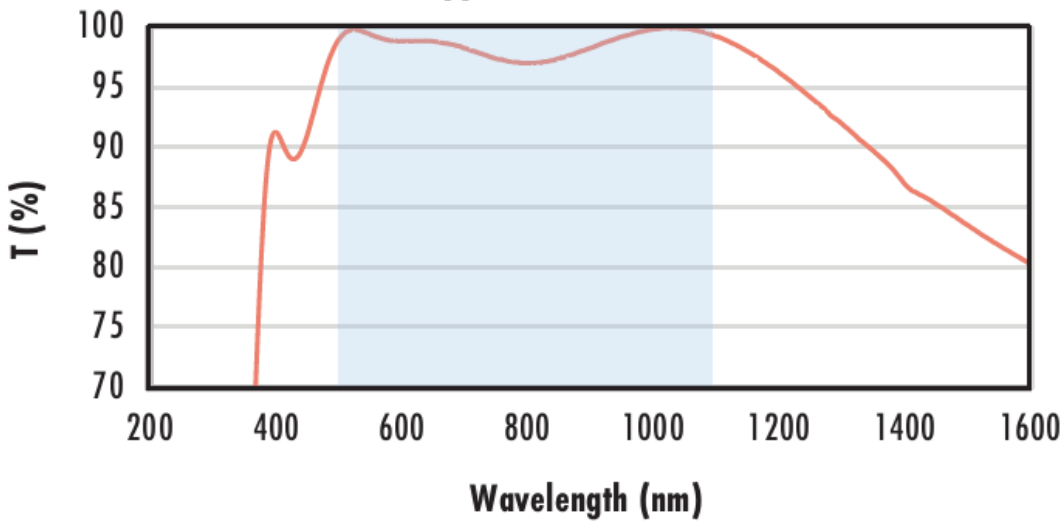
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

N-BK7 with YAG-BBAR Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

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

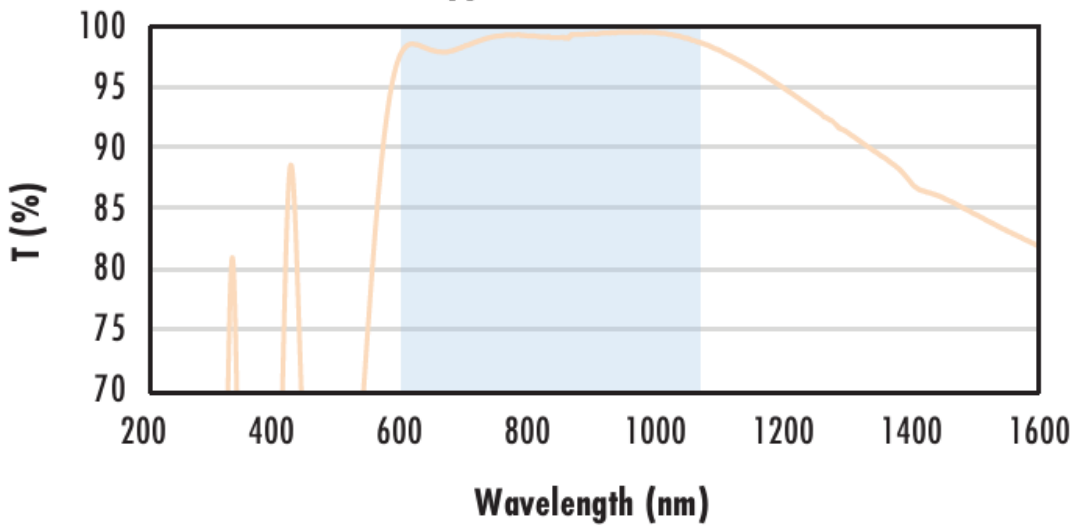
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

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

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

[Click Here to Download Data](#)

N-BK7 with NIR I Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

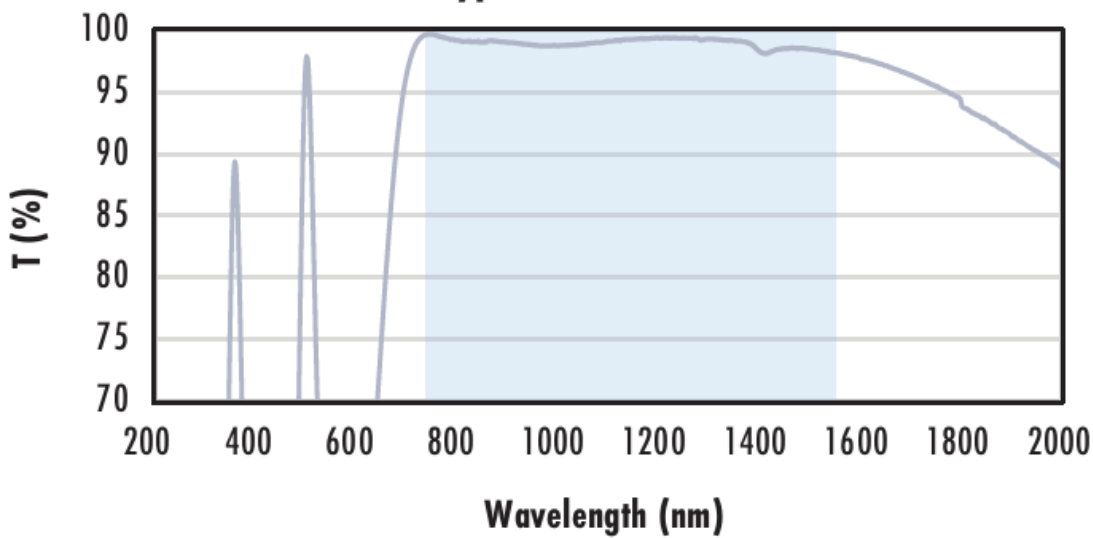
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

N-BK7 with NIR II Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

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

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

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

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

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

[Click Here to Download Data](#)

Coating Curves

Compatible Mounts

;