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TECHSPEC[®] 20mm Dia. x 25mm FL, NIR I Inked, Double-Convex Lens



Stock #63-647-INK 2 In Stock

☐ Other Coating Options

-

1

+

₹4,995

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Volume Pricing	
Qty 1-9	₹4,995 each
Qty 10-24	₹4,478 each
Qty 25-99	₹4,005 each
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General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

20.00 ±0.025

<1	Centering (arcmin):
Protective as needed	Bevel:
4.00	Center Thickness CT (mm):
±0.10	Center Thickness Tolerance (mm):
1.35	Edge Thickness ET (mm):
19.00	Clear Aperture CA (mm):
Optical Properties	
23.86	Back Focal Length BFL (mm):
25.00	Effective Focal Length EFL (mm):
NIR I (600-1050nm)	Coating:
R _{avg} ≤0.5% @ 600 - 1050nm	Coating Specification:
N-SF11	Substrate: □
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
38.34	Radius R ₁ =R ₂ (mm):
1.25	f/#:
587.6	Focal Length Specification Wavelength (nm):
0.40	Numerical Aperture NA:
600 - 1050	Wavelength Range (nm):
7 J/cm² @ 1064nm, 10ns	Damage Threshold, By Design: □
Regulatory Compliance	
View	Certificate of Conformance:
Japan	Country of Origin:
Edmund Optics India Private Limited	Imported By:

Custom

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

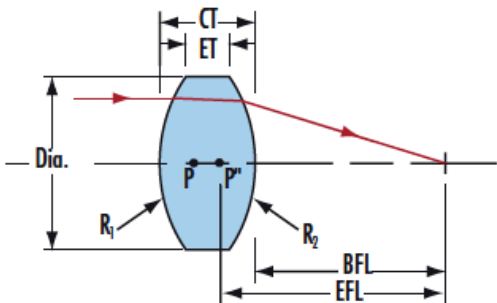
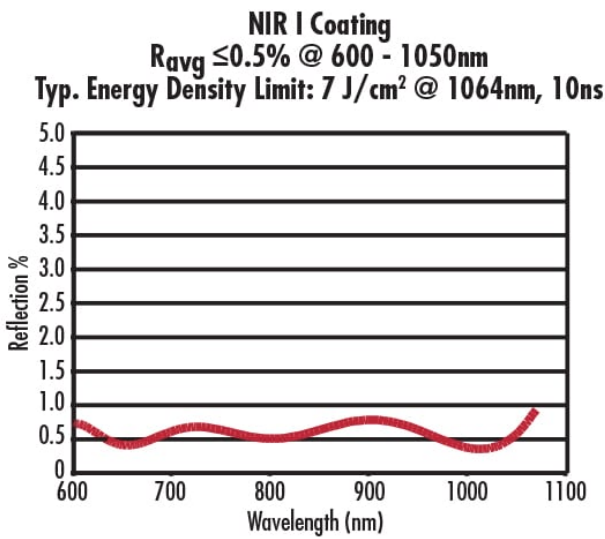
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 600 - 1050nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [MgF₂](#), [VIS 0°](#), [NIR II](#), [VIS-EXT](#), [VIS-NIR](#), and [YAG-BBAR](#)

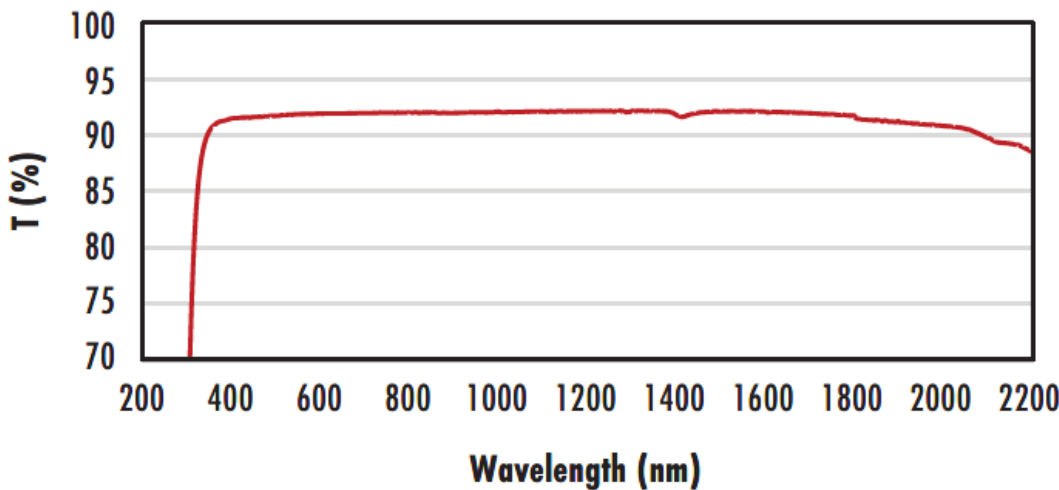
TECHSPEC® NIR I Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) 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® NIR I Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information



N-BK7

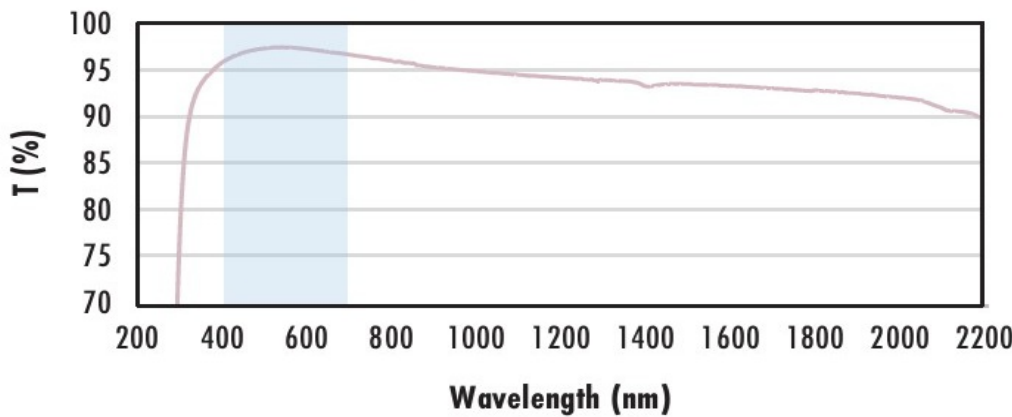
Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

N-BK7 with MgF₂ Coating
Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI.

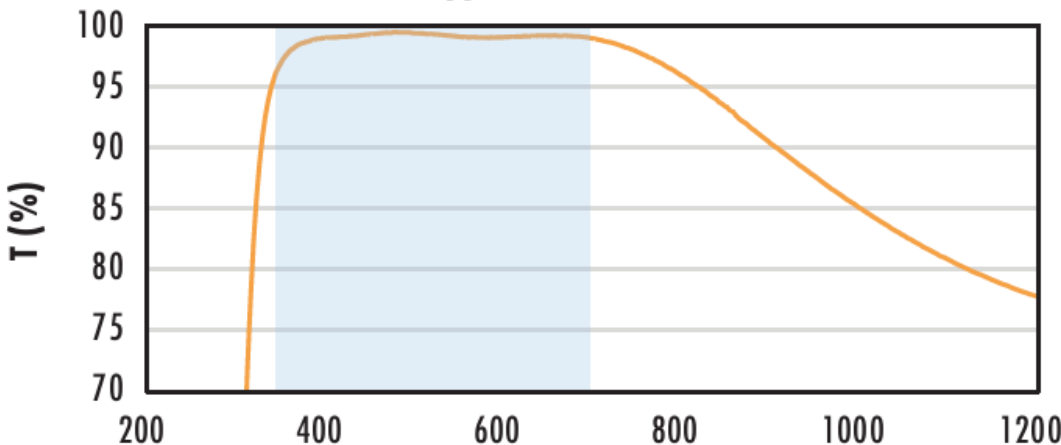
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

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.

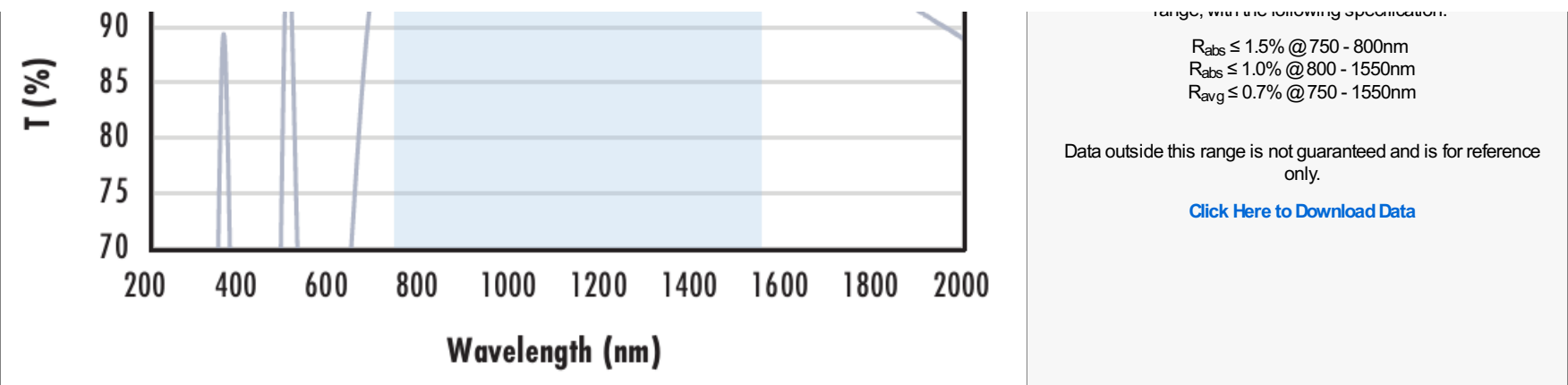
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

Wavelength (nm)	
N-BK7 with VIS-NIR Coating Typical Transmission The graph shows transmission T (%) vs Wavelength (nm) for N-BK7 with VIS-NIR coating. The x-axis ranges from 200 to 1600 nm, and the y-axis ranges from 70 to 100%. A blue shaded region indicates the design wavelength range from approximately 400 nm to 1000 nm. The transmission curve starts at ~70% at 350 nm, rises to ~98% at 400 nm, dips slightly, then stays above 95% until 1000 nm, after which it decreases to ~75% at 1600 nm.	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: $R_{abs} \leq 0.25\%$ @ 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
N-BK7 with VIS 0° Coating Typical Transmission The graph shows transmission T (%) vs Wavelength (nm) for N-BK7 with VIS 0° coating. The x-axis ranges from 200 to 1200 nm, and the y-axis ranges from 70 to 100%. A blue shaded region indicates the design wavelength range from approximately 425 nm to 675 nm. The transmission curve rises sharply from ~70% at 350 nm to ~98% at 425 nm, remains near 100% until 675 nm, then gradually declines to ~75% at 1200 nm.	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: $R_{avg} \leq 0.4\%$ @ 425 - 675nm 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 The graph shows transmission T (%) vs Wavelength (nm) for N-BK7 with YAG-BBAR coating. The x-axis ranges from 200 to 1600 nm, and the y-axis ranges from 70 to 100%. A blue shaded region indicates the design wavelength range from approximately 500 nm to 1100 nm. The transmission curve has peaks around 400 nm (~91%) and 1064 nm (~99%), with a slight dip around 800 nm. It remains above 95% within the shaded region and drops to ~80% at 1600 nm.	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: $R_{abs} \leq 0.25\%$ @ 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
N-BK7 with NIR I Coating Typical Transmission The graph shows transmission T (%) vs Wavelength (nm) for N-BK7 with NIR I coating. The x-axis ranges from 200 to 1600 nm, and the y-axis ranges from 70 to 100%. A blue shaded region indicates the design wavelength range from approximately 600 nm to 1050 nm. There are sharp absorption peaks below 500 nm. The transmission rises to ~98% at 600 nm, stays near 100% until 1050 nm, then declines to ~82% at 1600 nm.	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: $R_{avg} \leq 0.5\%$ @ 600 - 1050nm 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 The graph shows transmission T (%) vs Wavelength (nm) for N-BK7 with NIR II coating. The x-axis ranges from 200 to 1600 nm, and the y-axis ranges from 70 to 100%. A blue shaded region indicates the design wavelength range from approximately 750 nm to 1550 nm. The transmission curve shows a sharp peak around 350 nm and then rises to ~98% at 750 nm, remaining high until 1550 nm before dropping to ~75% at 1600 nm.	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:



Compatible Mounts