

[See all 86 Products in Family](#)**TECHSPEC® 15mm Dia. x 15mm FL Uncoated, Double-Convex Lens**Stock **#45-099** **20+** In Stock[Other Coating Options](#) **£28^{.00}****ADD TO CART**

Volume Pricing	
Qty 1-9	£28.00 each
Qty 10-24	£25.40 each
Qty 25-99	£22.40 each
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! Prices shown are exclusive of VAT/local taxes**Product Downloads****General****Type:**

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):
15.00 +0.0/-0.025

Centering (arcmin):
<1

Bevel:
Protective as needed

Center Thickness CT (mm):
4.50

Center Thickness Tolerance (mm):
±0.10

Edge Thickness ET (mm):
1.93

Clear Aperture CA (mm):
14.00

Optical Properties

Back Focal Length BFL (mm):
13.68

Effective Focal Length EFL (mm):
15.00

Coating:
Uncoated

Substrate:
N-SF11

Surface Quality:
40-20

Power (P-V) @ 632.8nm:
1.5λ

Irregularity (P-V) @ 632.8nm:
λ/4

Radius R₁=R₂ (mm):
22.51

f#:
1.00

Focal Length Specification Wavelength (nm):
587.6

Focal Length Tolerance (%):
±1

Numerical Aperture NA:
0.50

Wavelength Range (nm):
400 - 2500

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
[View](#)

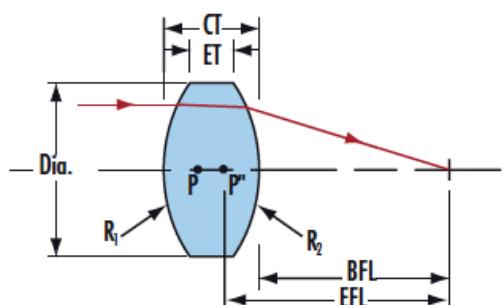
Reach 235:
Compliant

Product Details

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- UV Fused Silica DCX Lenses** Available
- Anti-Reflection Coating Options: **MgF₂**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**

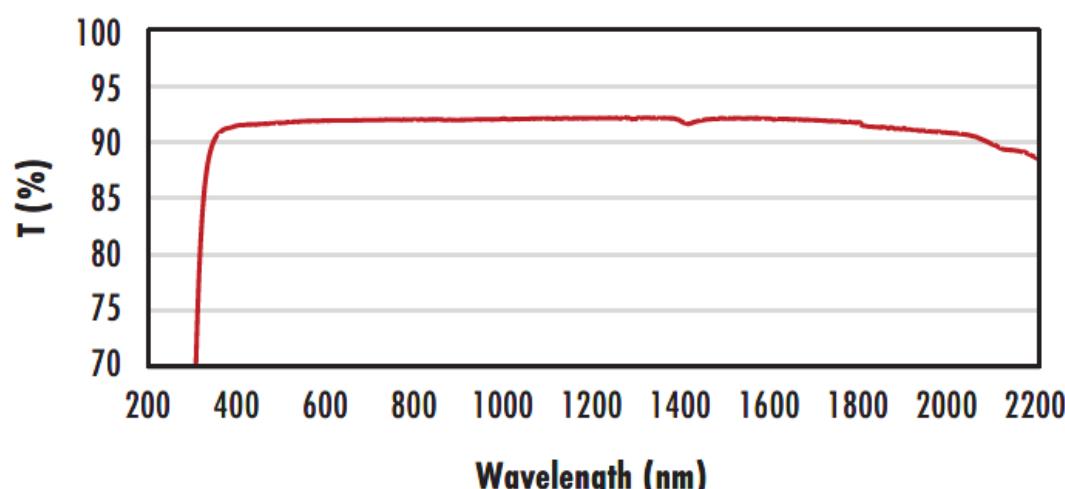
TECHSPEC® Uncoated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or canceled due to the symmetric lens design. TECHSPEC® Uncoated Double-Convex Lenses resist the effects from various aberrations in a lens design that are ultimately seen in performance and affect modulation transfer function (MTF), spot size, telecentricity, depth of field (DOF), and others. These lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information



N-BK7

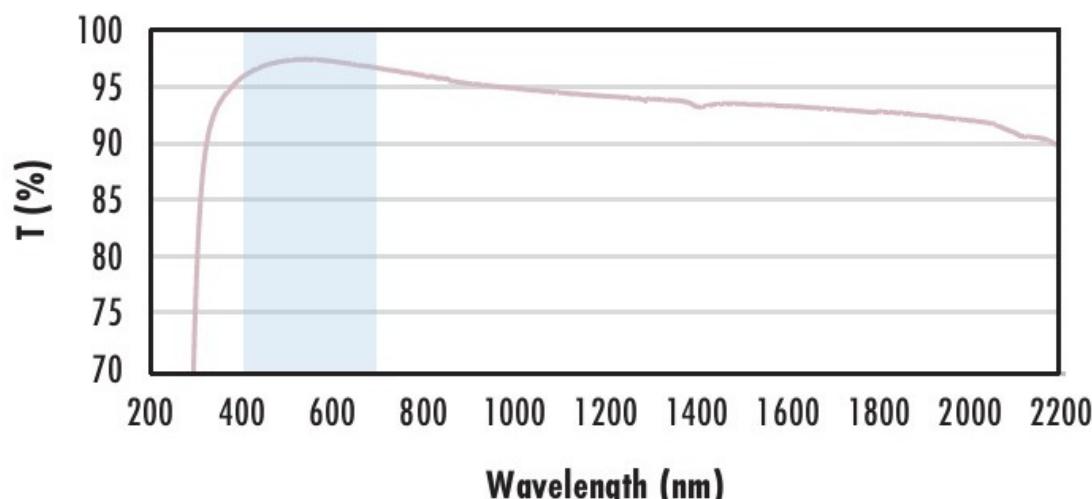
Uncoated N-BK7 Typical Transmission



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

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N-BK7 with MgF_2 Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF_2 (400-700nm) coating at 0° AOI.

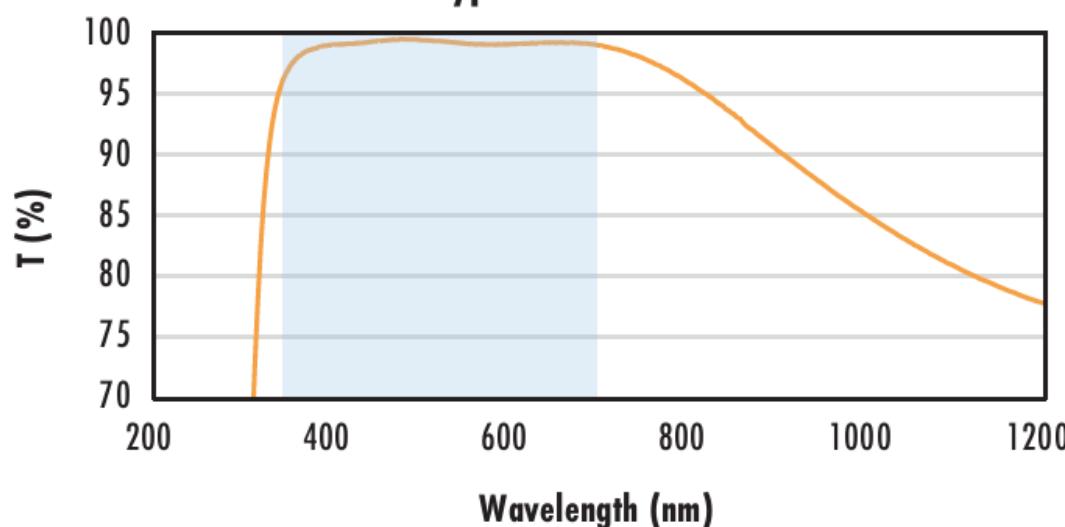
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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.

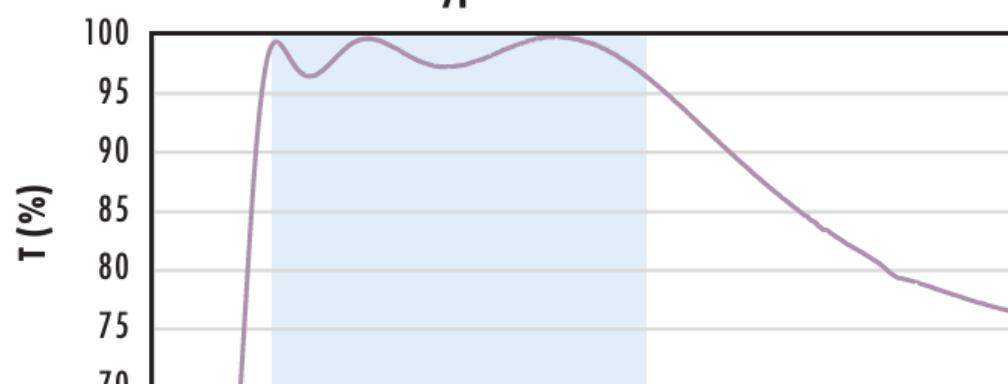
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

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:

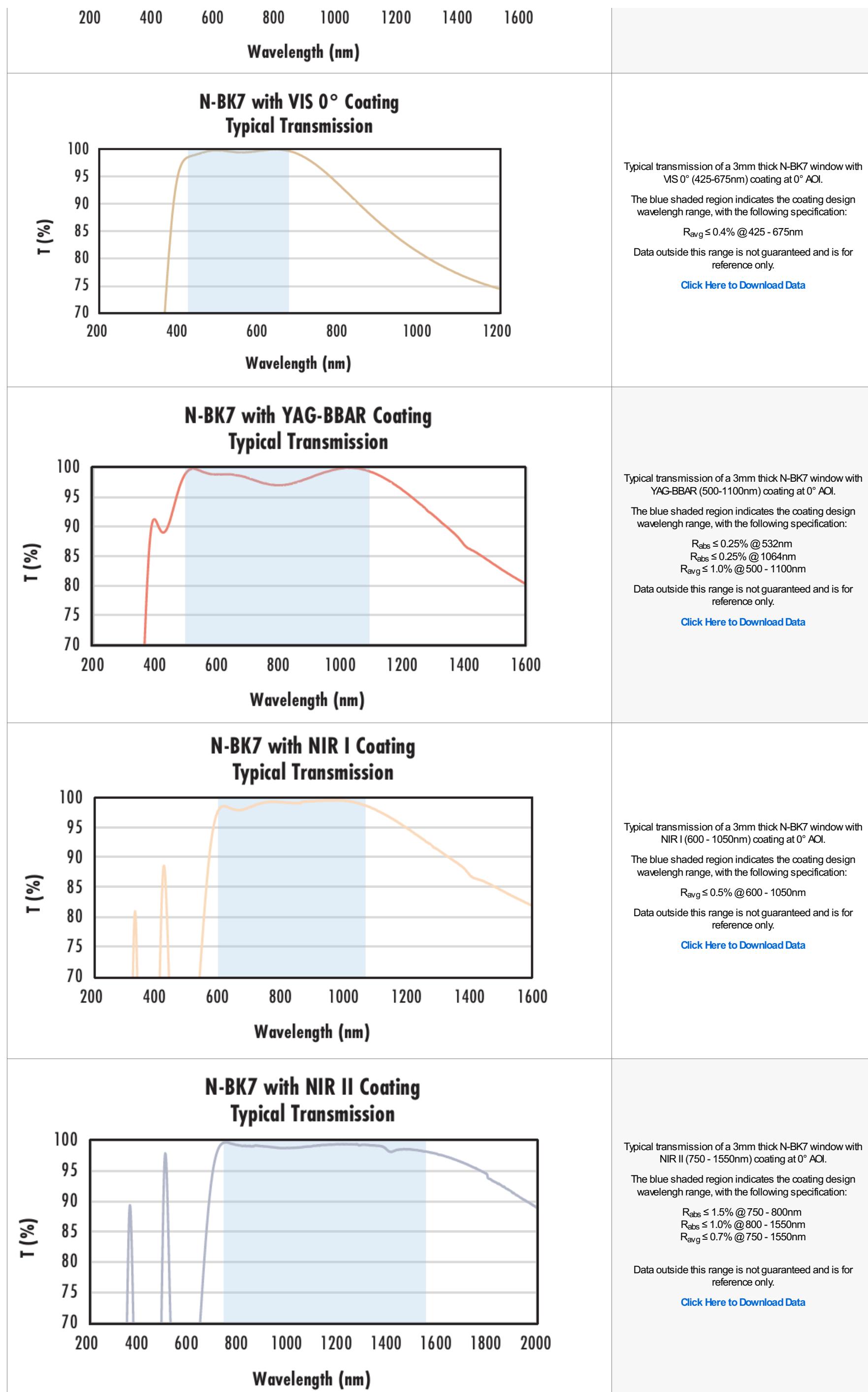
$R_{\text{abs}} \leq 0.25\% @ 880\text{nm}$

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

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

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

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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

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Compatible Mounts
