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TECHSPEC® 4.0mm Dia. x 12.0mm FL, VIS-NIR Coated, Plano-Convex Lens

Stock **#47-854** CONTACT US

Other Coating Options

- 1 + €71.50

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Volume Pricing	
Qty 1-9	**€71,50** each
Qty 10-24	**€64,50** each
Qty 25-49	**€57,00** each
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Product Downloads

General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):
4.00 +0.0/-0.025

Centering (arcmin):
<1

Center Thickness CT (mm):
1.52 ±0.05

Edge Thickness ET (mm):
1.19

Clear Aperture CA (mm):
3.6

Bevel:
Protective as needed

Optical Properties

Effective Focal Length EFL (mm):
12.00 @ 587.6nm

Back Focal Length BFL (mm):
11.00

Coating:
VIS-NIR (400-1000nm)

Coating Specification:
R_{abs} ≤0.25% @ 880nm
R_{avg} ≤1.25% @ 400 - 870nm
R_{avg} ≤1.25% @ 890 - 1000nm

Substrate:
N-BK7

Surface Quality:
20-10

Power (P-V) @ 632.8nm:
1.5λ

Irregularity (P-V) @ 632.8nm:
λ/4

Focal Length Tolerance (%):
±1

Radius R_1 (mm):
6.22

f/#:
3.00

Numerical Aperture NA:
0.17

Wavelength Range (nm):
400 - 1000

Damage Threshold, By Design:
5 J/cm^2 @ 532nm, 10ns

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 235:
Compliant

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.

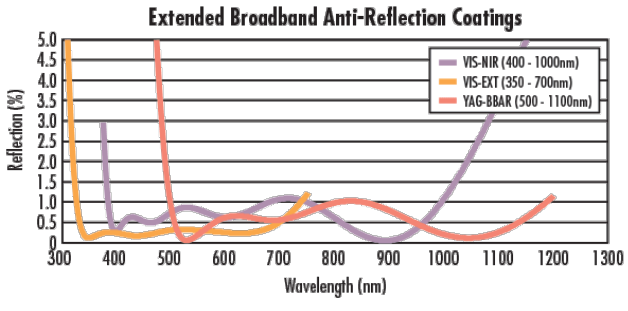
Product Details

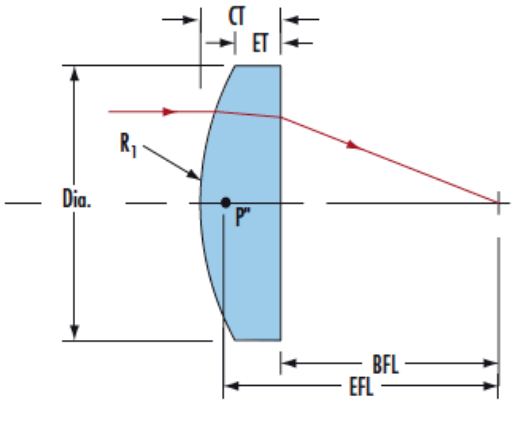
- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
- <0.25% Reflectance @ 880nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: Uncoated, MgF_2, VIS 0°, NIR I, NIR II, VIS-EXT, and YAG-BBAR

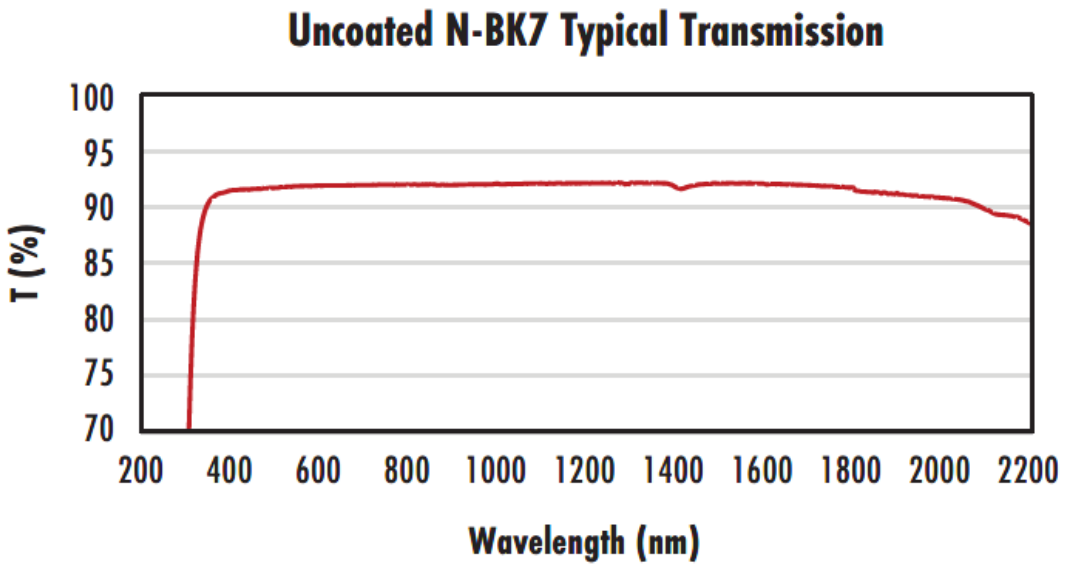
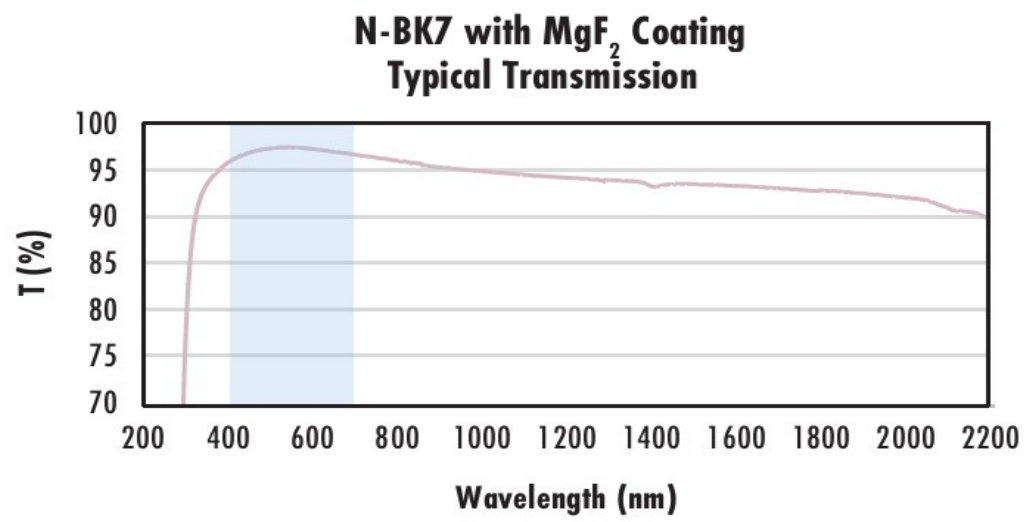
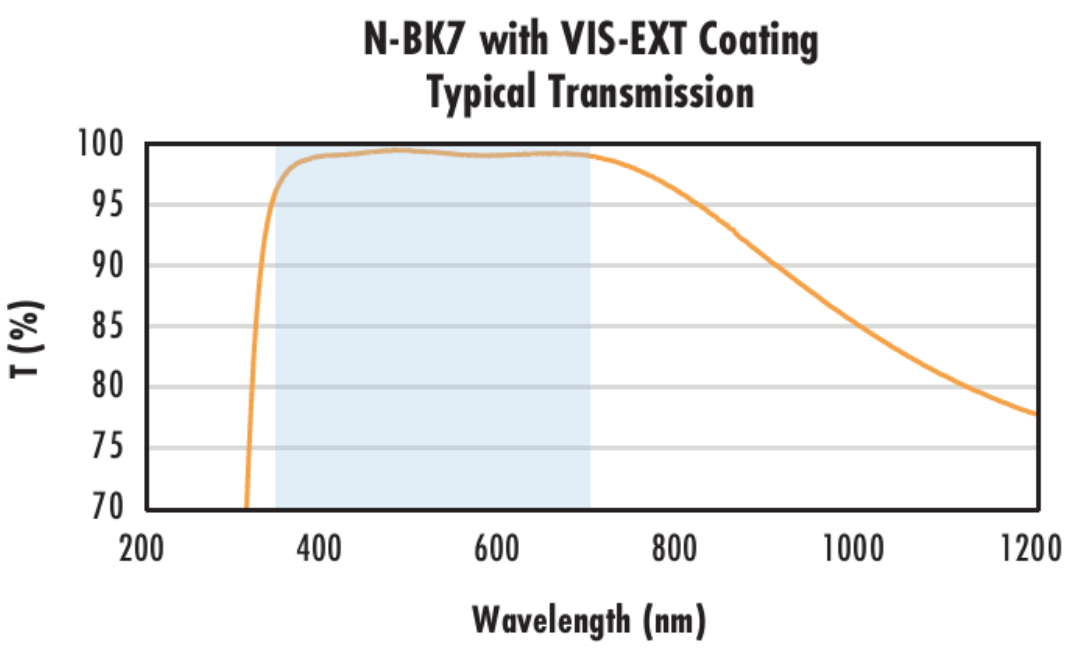
TECHSPEC® VIS-NIR Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. Plano-Convex lenses are ideal for a multitude of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms. TECHSPEC® VIS-NIR Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered uncoated or with broadband anti-reflective (BBAR) coatings, which include MgF2, VIS 0°, NIR I, NIR II, VIS-EXT, and YAG-BBAR.

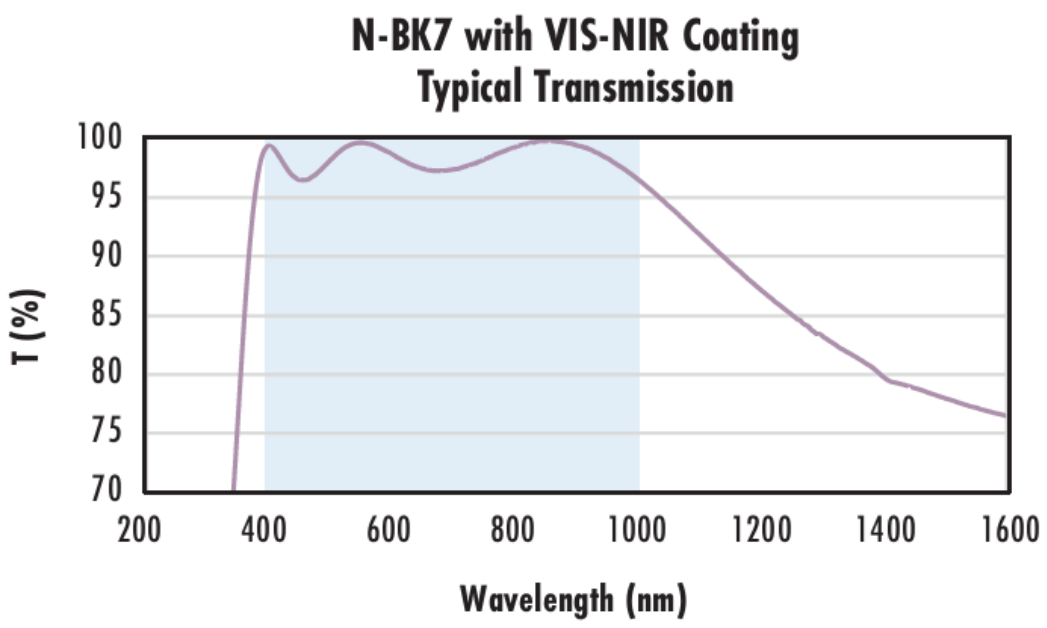
These coated lenses are optimized for a wide range of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms.

Technical Information





N-BK7	
	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data
	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 wavelengh range, with the following specification: $R_{avg} \leq 1.75\%$ @ 400 - 700nm (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
	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 wavelengh range, with the following specification: $R_{avg} \leq 0.5\%$ @ 350 - 700nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data



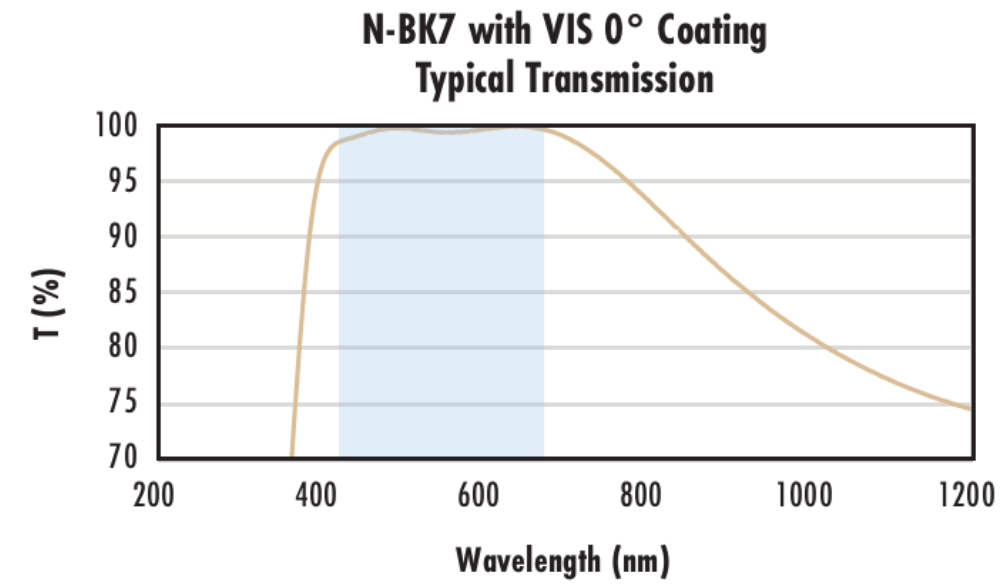
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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



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 wavelengh range, with the following specification:

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

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

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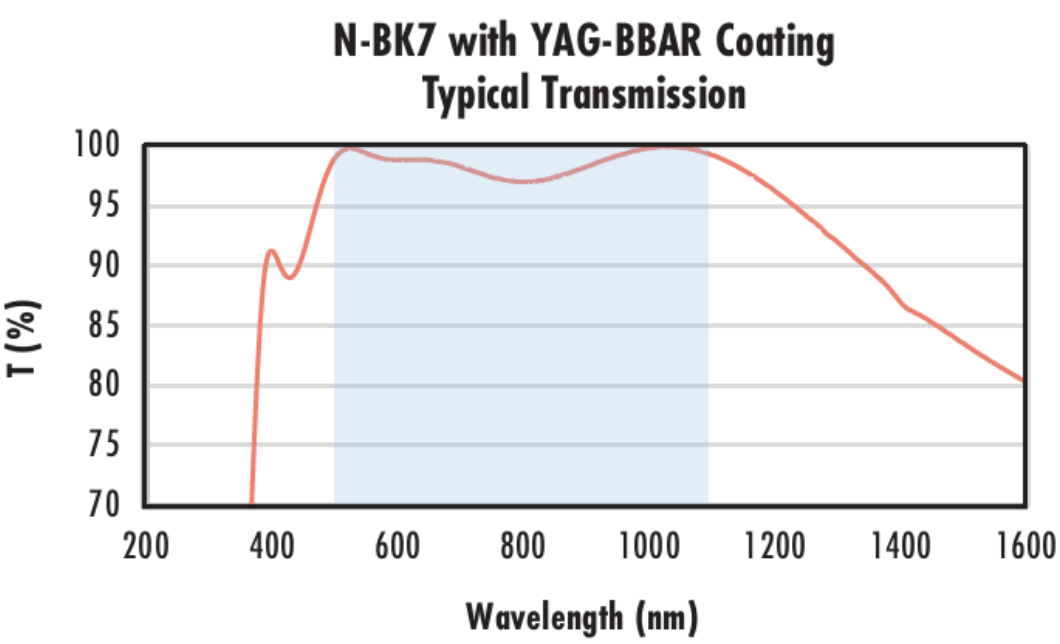


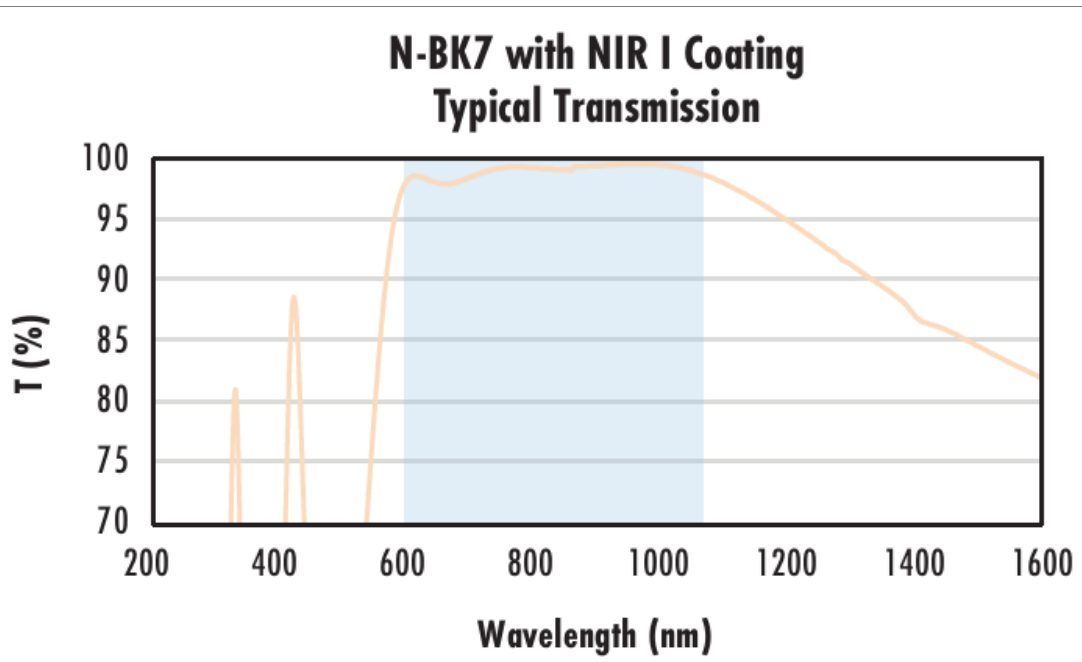
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelengh 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



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 wavelengh range, with the following specification:

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

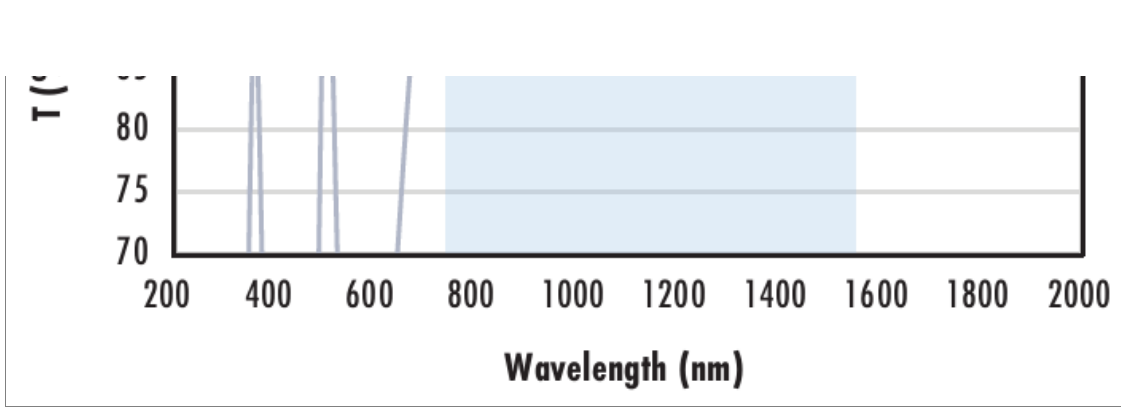
Data outside this range is not guaranteed and is for reference only.

Click Here to Download Data

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 wavelengh 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.

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Coating Curves

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