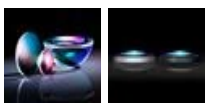
TECHSPEC®

25.0mm Dia. x 500.0mm FL, Uncoated, Plano-Convex Lens



Stock #45-280 20+ In Stock

Other Coating Options

- 1 +

£26.20

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Volume Pricing	
Qty 1-9	£26.20 each
Qty 10-24	£23.60 each
Qty 25-49	£20.80 each
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Prices shown are exclusive of VAT/local taxes

Product Downloads

STEP:stp | PDF Drawing:pdf | ISO 10110 Drawing | IGES:igs | Zemax:zar | Zemax:zmx | eDrawing:eprt | Code V:seq | EO Spec Sheet

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General

Type:	Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	25.00 +0.0/-0.025	**Centering (arcmin):**	<1
Center Thickness CT (mm):	3.20 ±0.10	**Edge Thickness ET (mm):**	2.90
Clear Aperture CA (mm):	24	**Bevel:**	Protective as needed

Optical Properties

Effective Focal Length EFL (mm):	500.00 @ 587.6nm	**Back Focal Length BFL (mm):**	497.89
Coating:	Uncoated	**Substrate:** ⓘ	N-BK7
Surface Quality:	40-20	**Power (P-V) @ 632.8nm:**	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4	**Focal Length Tolerance (%):**	±1
Radius R_1 (mm):	258.40	**f/#:**	20
Numerical Aperture NA:	0.03	**Wavelength Range (nm):**	350 - 2200

Regulatory Compliance

RoHS 2015:	**Compliant**	**Reach 219:**	**Compliant**
Certificate of Conformance:	**View**		

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

- Wavelength Range of 350-2200nm
- Precision Diameter and Centration Tolerances Allow for Easy OEM Integration
- Wide Variety of Diameters, Focal Lengths, and Coatings
- Anti-Reflection PCX Coating Options: **MgF_2**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**

TECHSPEC® Uncoated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. These lenses excel in optical systems by concentrating light onto a detector or imaging plane, enhancing clarity and detail. They are also valuable for 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. Their uncoated design ensures consistent performance across a broad wavelength range, making them versatile and reliable components for various optical setups.

TECHSPEC Uncoated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered with broadband anti-reflective (BBAR) coatings, which include **MgF2**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**.

These coatings minimize surface reflections and maximize light transmission across different spectral ranges, ensuring optimal performance in various imaging and photonics applications. Whether for general use or specialized needs, TECHSPEC® PCX Lenses deliver precision and adaptability to enhance the effectiveness of optical systems.

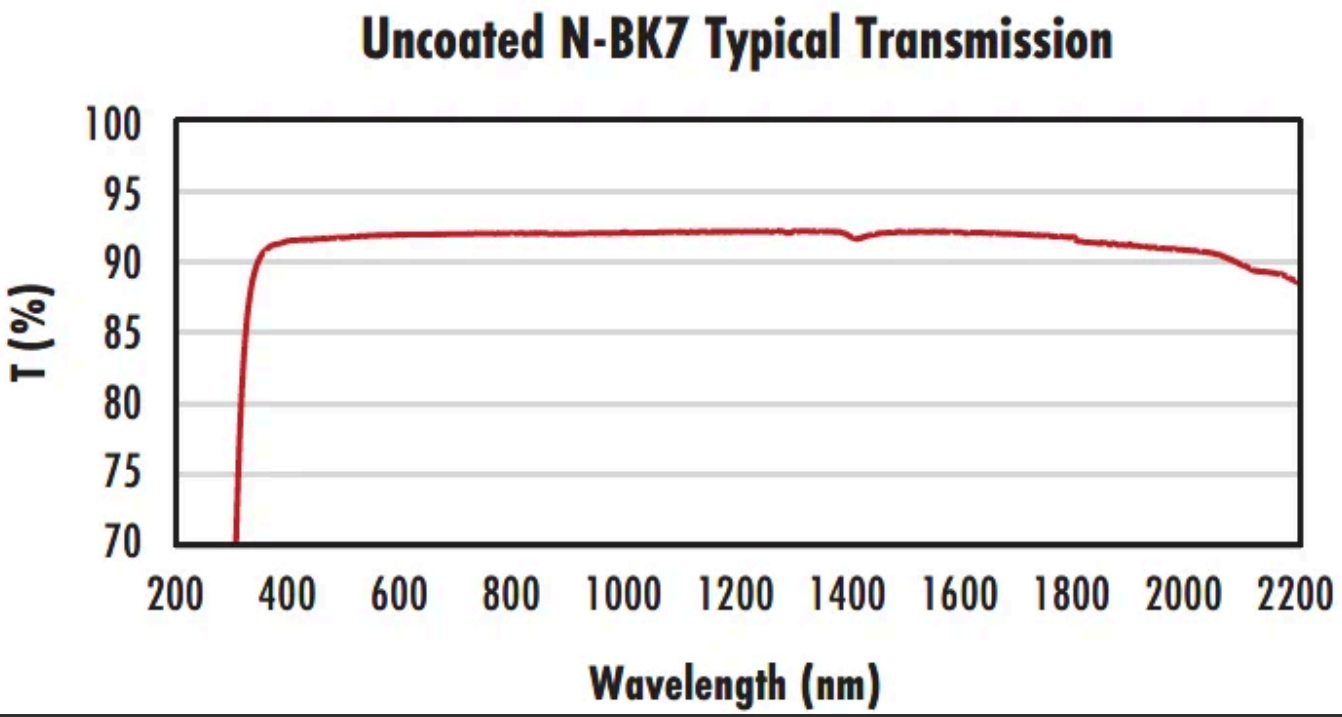
Customers can utilize TECHSPEC® Uncoated Plano-Convex (PCX) Lenses in various ways:

- For emitters and detectors, these lenses are ideal for focusing and collimating light to enhance signal detection.
- In laser applications, they can be used to focus laser beams or to couple light efficiently into optical fibers, improving the performance of laser systems.
- For fiber optics, PCX lenses help couple light between fibers and other optical components, optimizing signal transmission and minimizing loss.
- In biotech instruments such as DNA sequencers and PCR testing platforms, these lenses focus light onto samples or detectors. Their ability to provide precise light collection and focusing enhances the accuracy and reliability of optical measurements, making them essential for high-resolution imaging and detection tasks.

By integrating TECHSPEC® Uncoated PCX Lenses into these systems, customers can achieve improved optical performance and enhanced functionality across various photonics and optical applications.

TECHSPEC Uncoated Plano-Convex (PCX) Lenses are available in a variety of diameters, focal lengths, and optical materials. Plano-convex lenses are manufactured from high quality materials such as UV Grade **Fused Silica**, N-BK7 Optical Glass, and a wide variety of **Infrared (IR) materials**. Different materials are useful for a variety of applications; review our **lens material selection tech note** for additional information.

Technical Information



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

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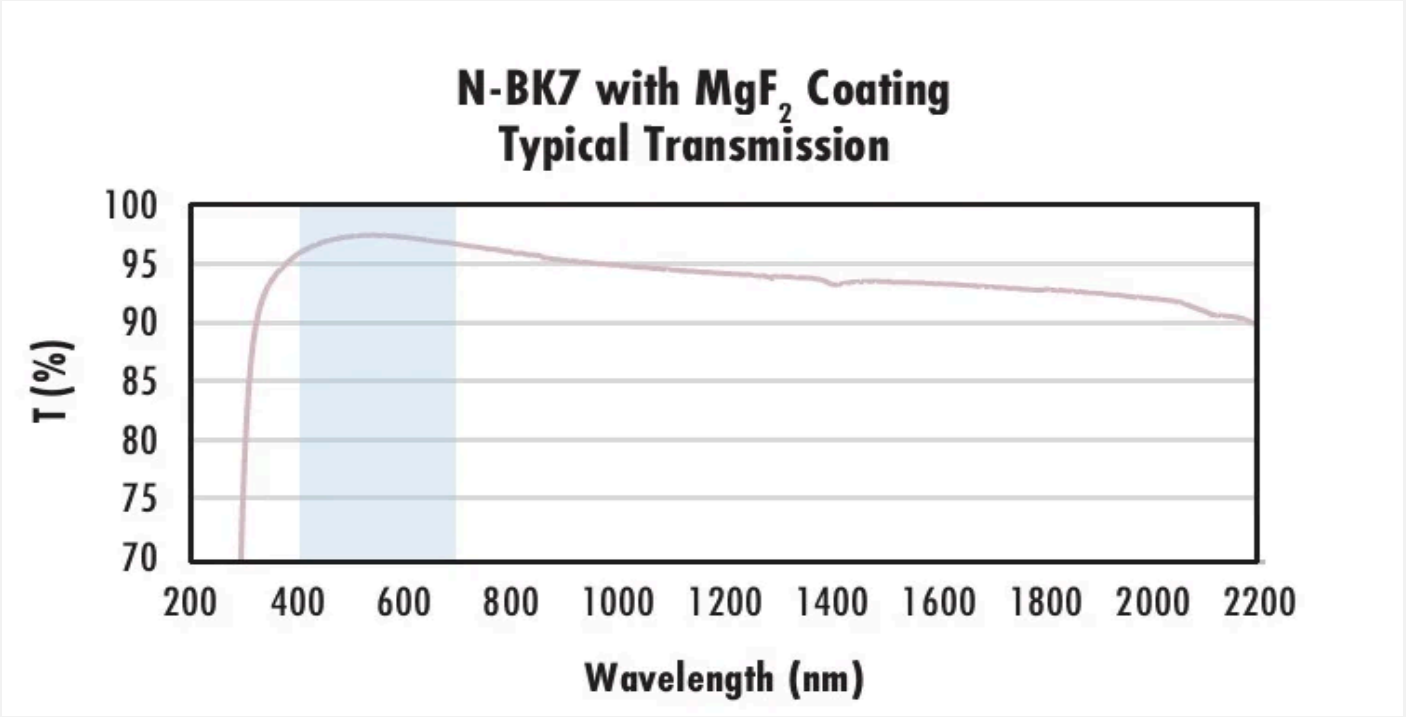

Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

The blue shaded region indicates the coating desig wavelengh range, with the following specification:

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

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

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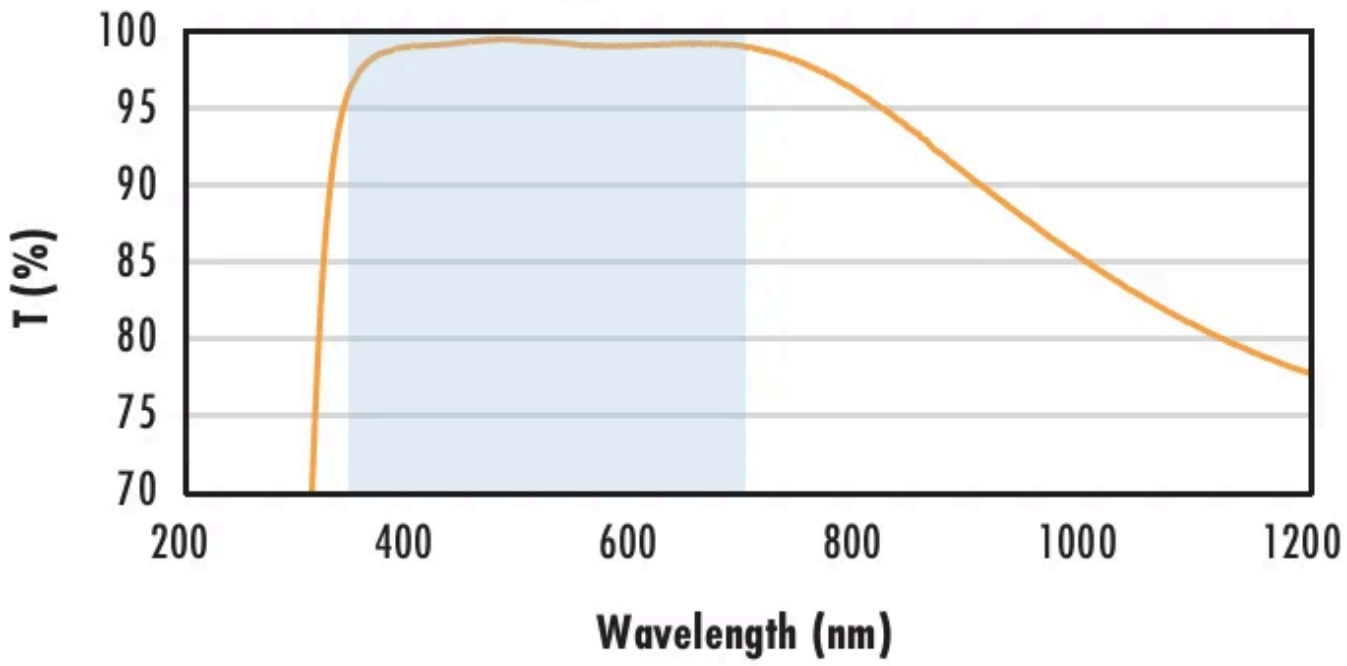

Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

The blue shaded region indicates the coating desig wavelengh range, with the following specification:

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

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

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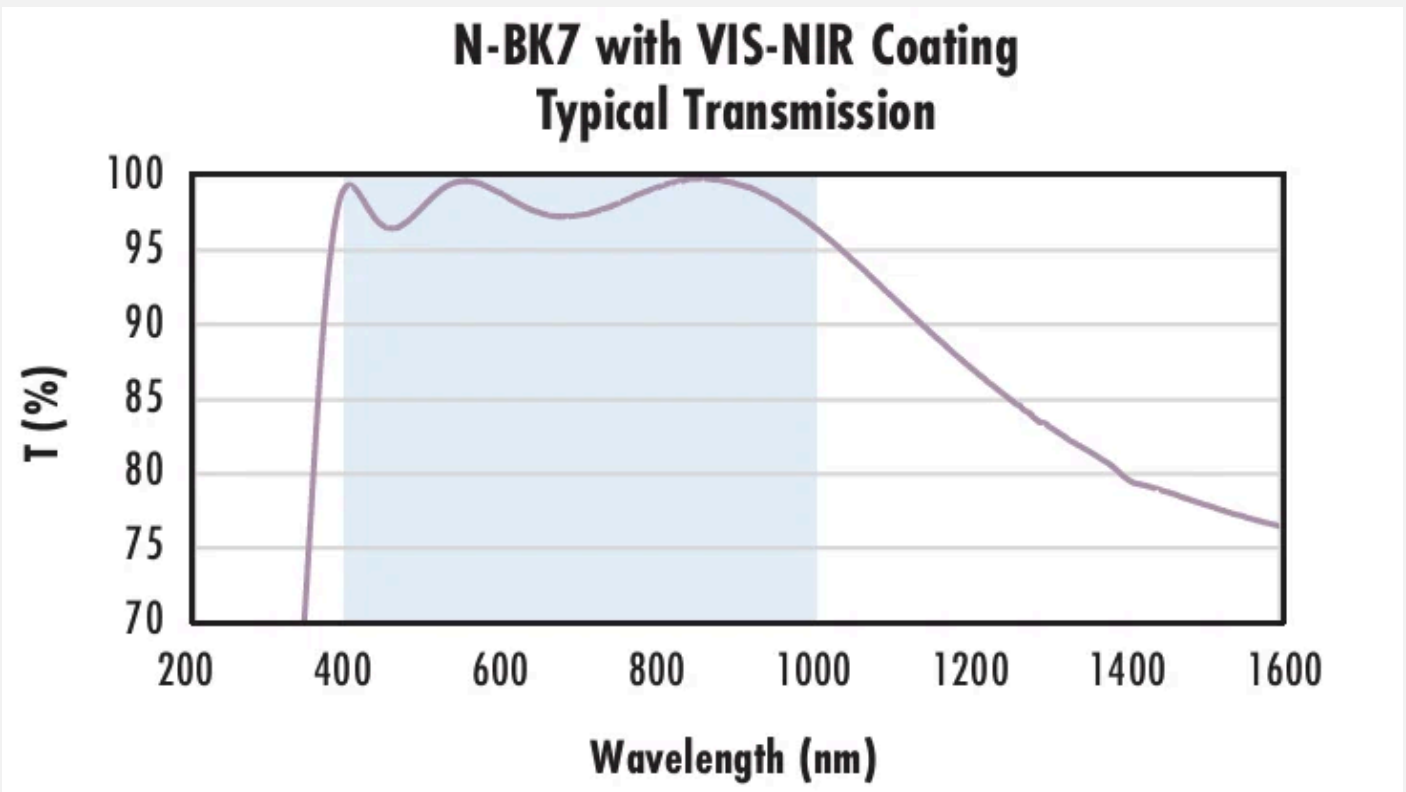

Typical transmission of a 3mm thick N-BK7 window w VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating desig 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 fo reference only.

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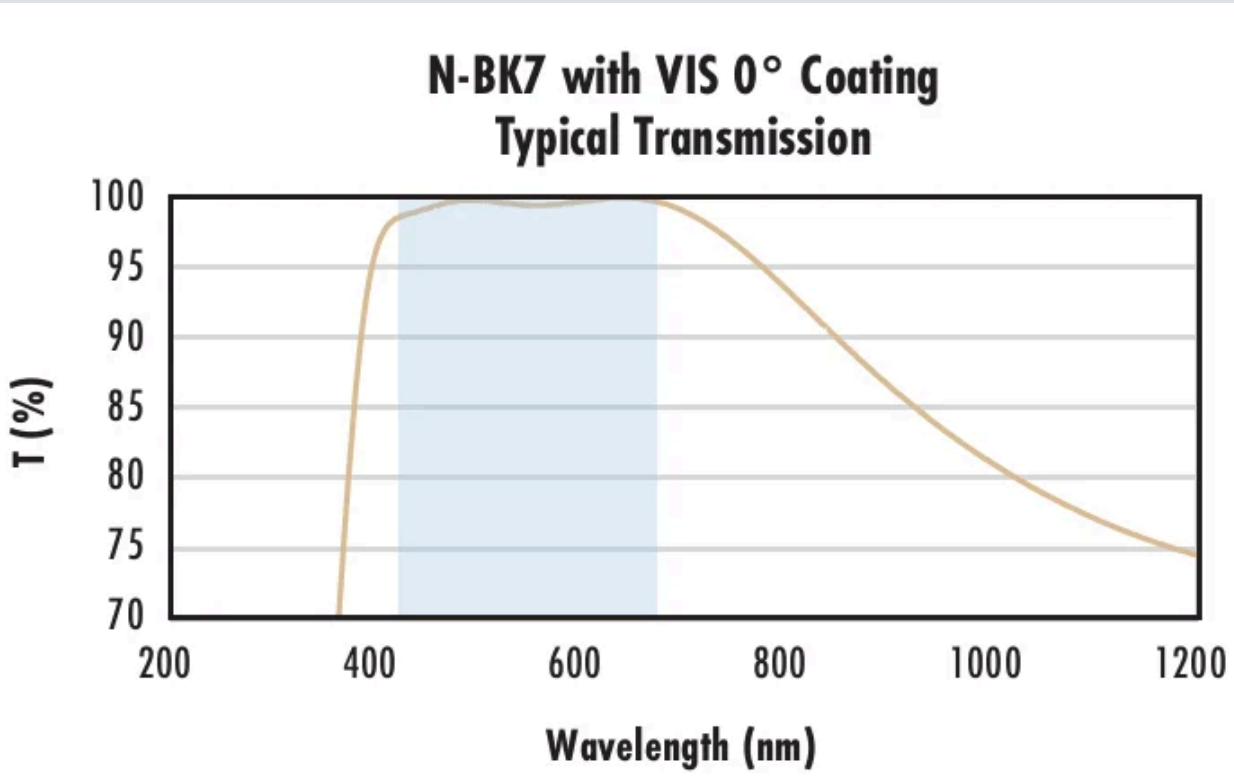

Typical transmission of a 3mm thick N-BK7 window wit 0° (425-675nm) coating at 0° AOI.

The blue shaded region indicates the coating desig wavelengh range, with the following specification:

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

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

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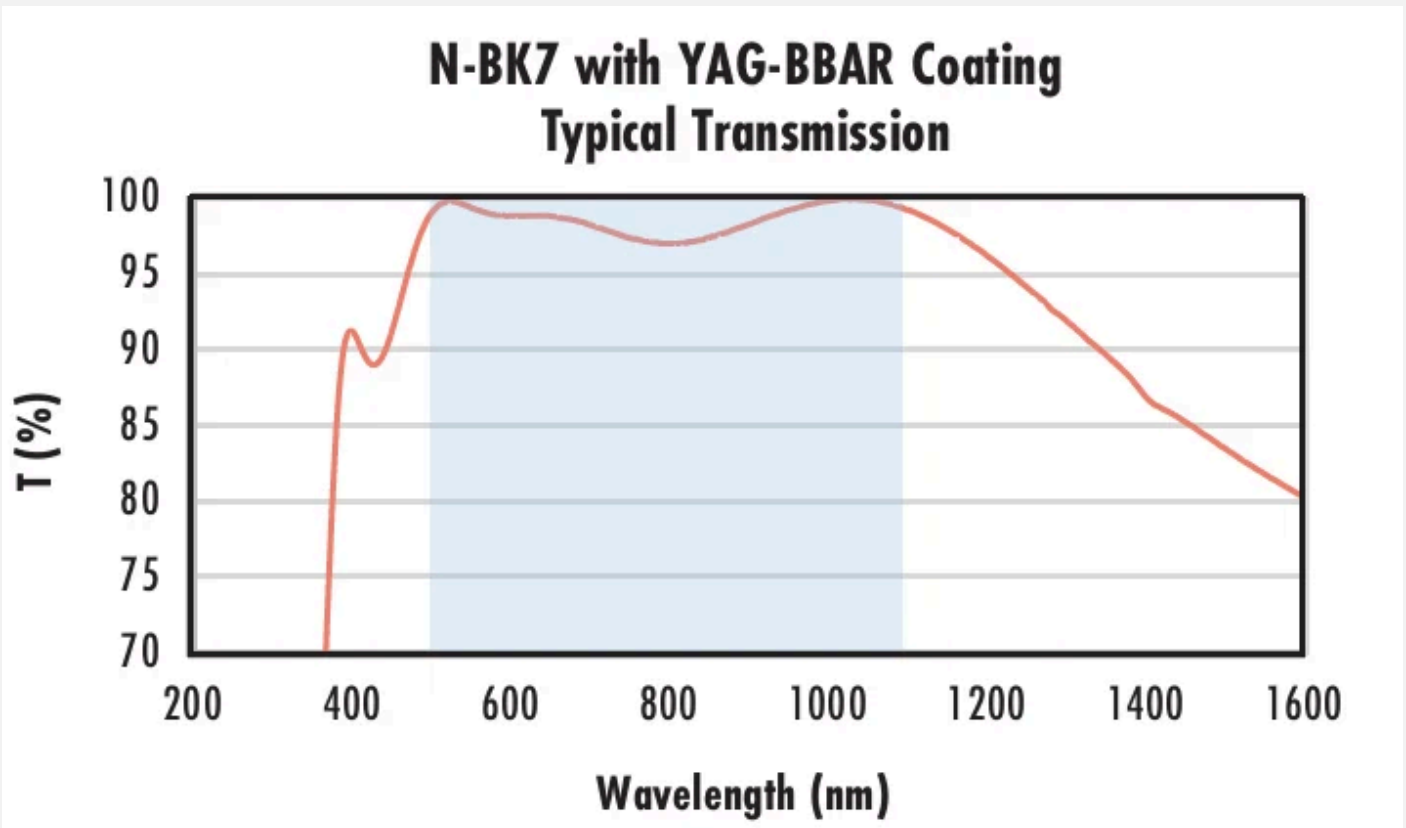

Typical transmission of a 3mm thick N-BK7 window w YAG-BBAR (500-1100nm) coating at 0° AOI.

The blue shaded region indicates the coating desig 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 fo reference only.

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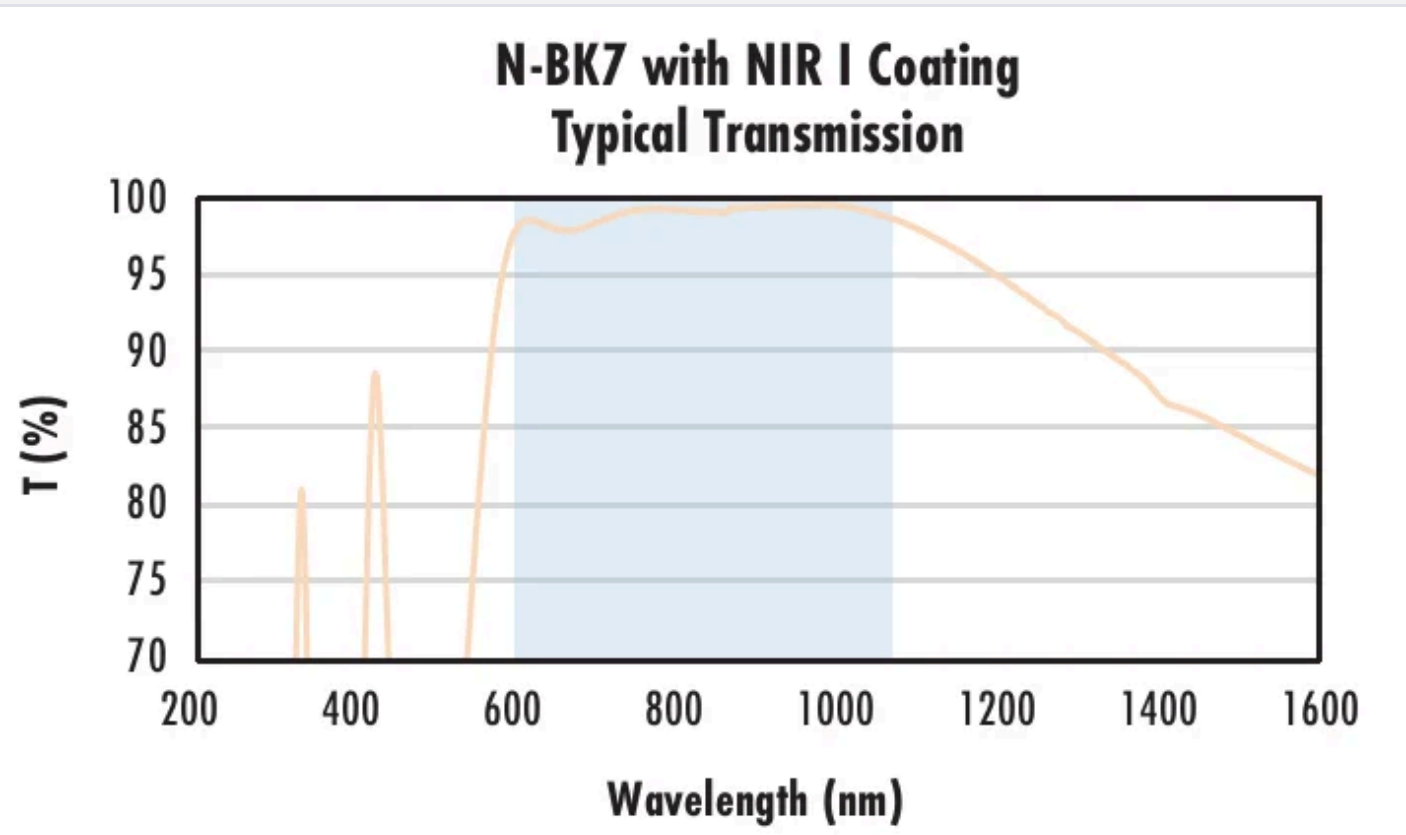

Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

The blue shaded region indicates the coating desig wavelengh range, with the following specification:

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

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

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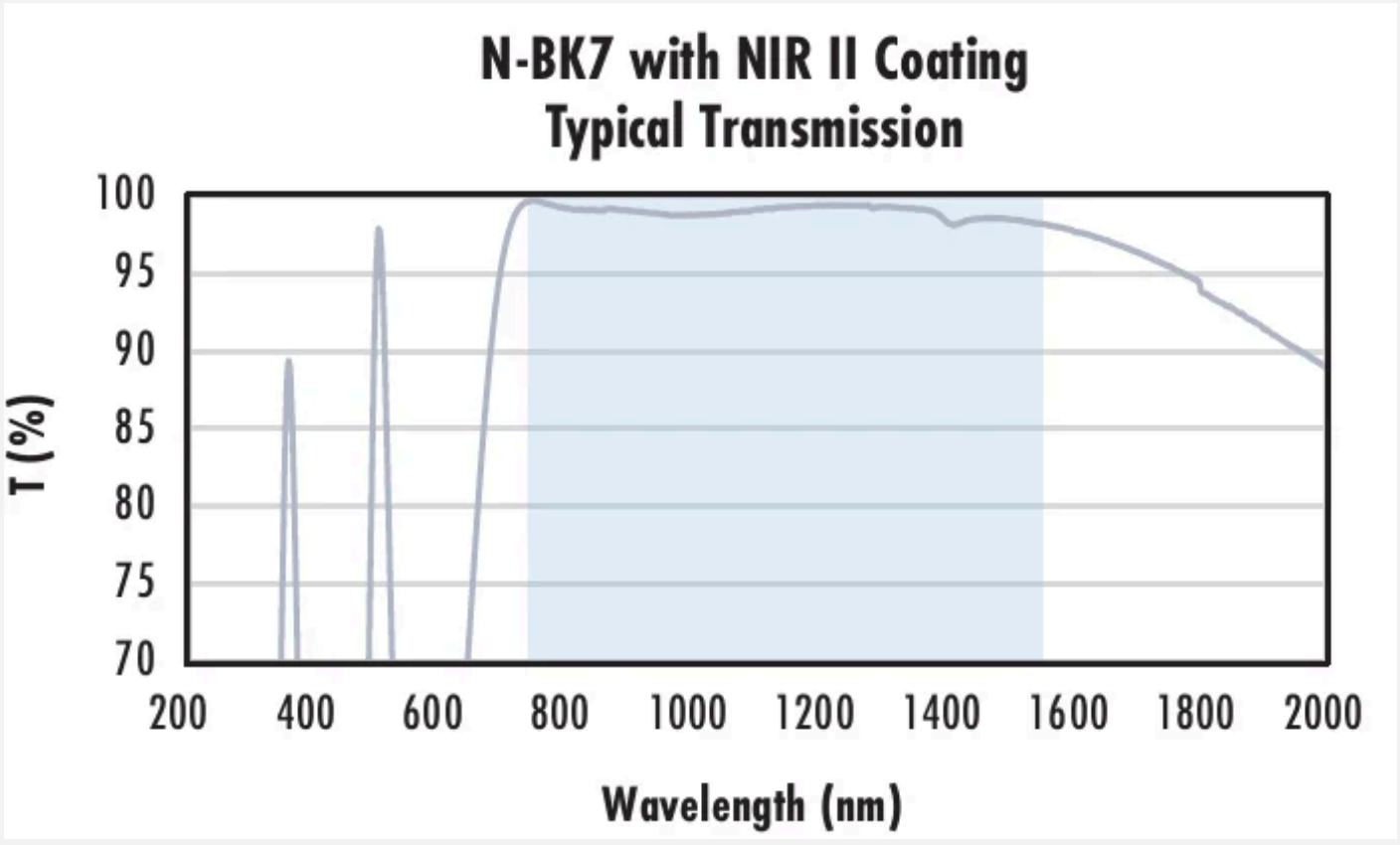

Typical transmission of a 3mm thick N-BK7 window witl
II (750 - 1550nm) coating at 0° AOI.

The blue shaded region indicates the coating desig
wavelengh range, with the following specification:

R_{abs} ≤ 1.5% @ 750 - 800nm
R_{abs} ≤ 1.0% @ 800 - 1550nm
R_{avg} ≤ 0.7% @ 750 - 1550nm

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

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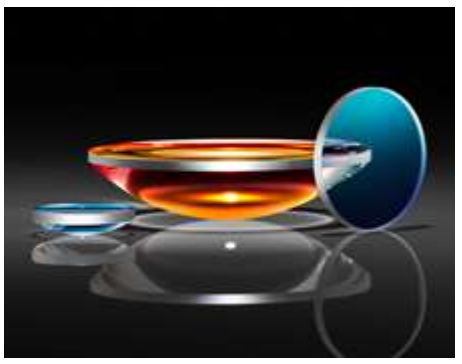
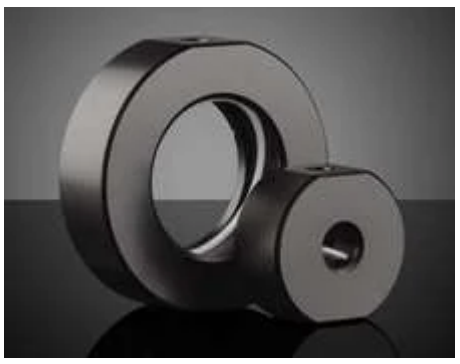
Related Products

C, S, and T-Mount Circular Optic Mounts

Basic and Plus Optical Component Cleaning Kits



UV Fused Silica Plano-Convex (PCX) Lenses - Uncoated



Optic Component Mounts

Frequently Purchased Together

#03-676 - 7.0 - 40.0 Optic Height, English Bar-Type Optic Holder
£84.80
Qty

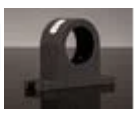
#27-507 - 125mm Dia x 500mm Focal Length, PCX Condenser Lens
£111.20
Qty

#32-336 - 25mm, Uncoated, N-BK7 Right Angle Prism
£63.60
Qty

#32-362 - 85 x 101mm, 4-6λ Mirror
£38.40
Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	25.0/25.4mm Optic Dia., SM1 Thin Mount, M4	Fixed		#13-787	£16.80 Request Quote	4 In Stock 1
MORE+ 	25.0/25.4mm Optic Dia., SM1 Thin Mount, 8-32	Fixed		#13-788	£16.80 Request Quote	20+ In Stock 1

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	25.0mm Optic Dia., Optic Mount	Fixed		#64-560	£26.20 Request Quote	CONTACT US 1
MORE+ 	25mm Thin Inner Single Optic Mount	Fixed		#38-755	£32.80 Request Quote	14 In Stock 1
MORE+ 	30mm Cage 25/25.4mm Diameter Lens Mount	Fixed		#85-587	£34.80 Request Quote	20+ In Stock 1
MORE+ 	30mm Cage 25/25.4mm Diameter Thick Lens Mount	Fixed		#85-588	£36.60 Request Quote	20+ In Stock 1
MORE+ 	25/30mm Cage 25mm Diameter Lens Mount	Fixed		#85-678	£36.60 Request Quote	3 In Stock 1
MORE+ 	25.0/25.4mm Optic Dia., L-Slot Direct Mount	Fixed		#36-410	£54.40 Request Quote	15 In Stock 1
MORE+ 	25.0/25.4mm Optic Dia., Side Flange Direct Mount	Fixed		#36-414	£56.80 Request Quote	20+ In Stock 1
MORE+ 	25/25.4mm Diameter, T-Mount Thin Optic Mount	Fixed		#52-292	£57.60 Request Quote	CONTACT US 1
MORE+ 	25mm Thin Inner Pair Optic Mounts	Fixed		#11-052	£64.40 Request Quote	3 In Stock 1
MORE+ 	25mm Thick Inner Pair Optic Mounts	Fixed		#11-054	£64.40 Request Quote	5 In Stock 1
MORE+ 	25.0/25.4mm Optic Dia., L-Slot and Rotation Direct Mount	Adjustable - Rotary		#36-411	£81.60 Request Quote	5 In Stock 1
MORE+ 	25.0/25.4mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-956	£220.80 Request Quote	CONTACT US 1
MORE+ 	25.0/25.4mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-959	£432.00 Request Quote	6 In Stock 1
MORE+ 	25.0/25.4mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-776	£604.00 Request Quote	2 In Stock 1

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Media Type

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Anti-Reflection (AR) Coatings

APPLICATION NOTE
An Introduction to Optical Coatings

APPLICATION NOTE
Understanding Optical Specifications

- [ ] Application Note
- [ ] Technical Tool
- [ ] Trending in Optics
- [ ] FAQ
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APPLICATION NOTE

Lens Geometry Performance Comparison

TECHNICAL TOOL

SAG Calculator

TRENDING IN OPTICS

Future of Spherical Lenses

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