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TECHSPEC® 40mm ...e-Convex Lens

Options

- 1 +

€51,00

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Volume Pricing	
Qty 1-9	€51,00 each
Qty 10-24	€46,00 each
Qty 25-99	€40,75 each
Need More?	Request Quote

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:	Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	40.00 +0.0/-0.025	**Centering (arcmin):**	<1
Bevel:	Protective as needed	**Center Thickness CT (mm):**	8.00
Center Thickness Tolerance (mm):	±0.10	**Edge Thickness ET (mm):**	4.04
Clear Aperture CA (mm):	39.00		

Optical Properties

Back Focal Length BFL (mm):	97.33	**Effective Focal Length EFL (mm):**	100.00
Coating:	Uncoated	**Substrate:** ⓘ	N-BK7
Surface Quality:	40-20	**Power (P-V) @ 632.8nm:**	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4	**Radius R_1=-R_2 (mm):**	101.98
f/#:	2.5	**Focal Length Specification Wavelength (nm):**	587.6

Focal Length Tolerance (%):	±1	**Numerical Aperture NA:**	0.20
Wavelength Range (nm):	330 - 2500		

Regulatory Compliance

RoHS 2015:	**Compliant**	**Conformance:**	
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

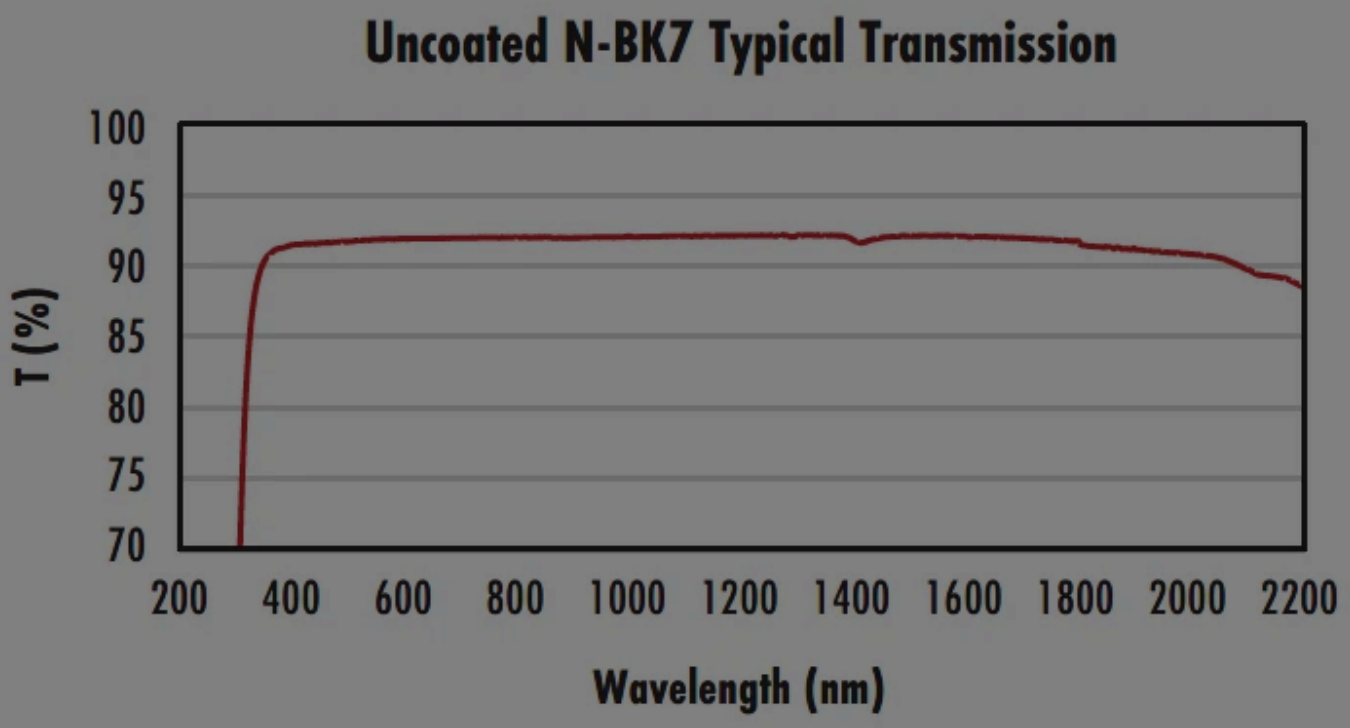
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

Product Details

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- **UV Fused Silica DCX Lenses** Available
- Anti-Reflection Coating Options: **MgF_2**, **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



Typical transmission of a 3mm thick, uncoate BK7 window across the UV – NIR spectra.

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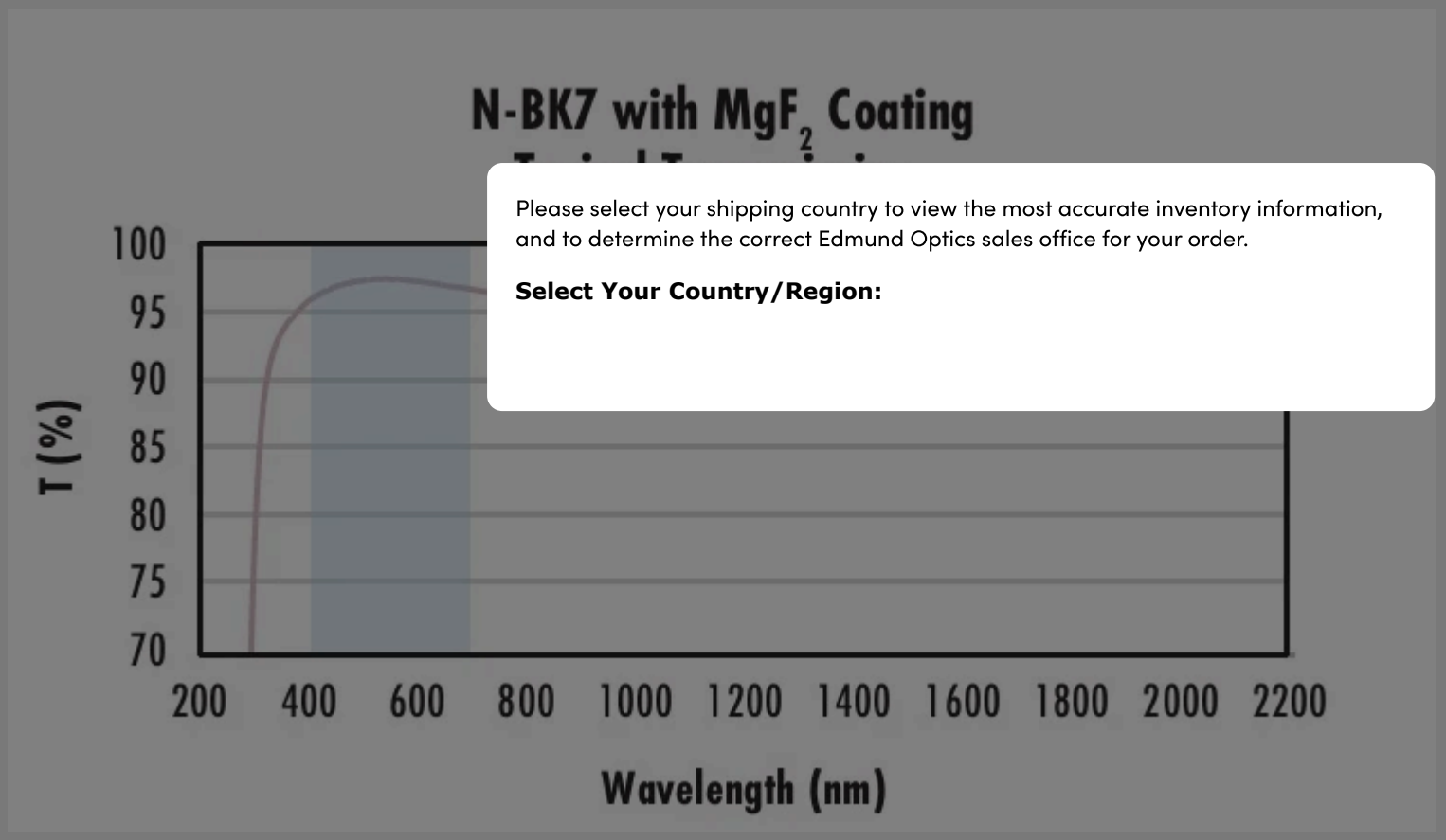

Typical transmission of a 3mm thick N-BK window with MgF2 (400-700nm) coating 0° AOI.

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

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

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

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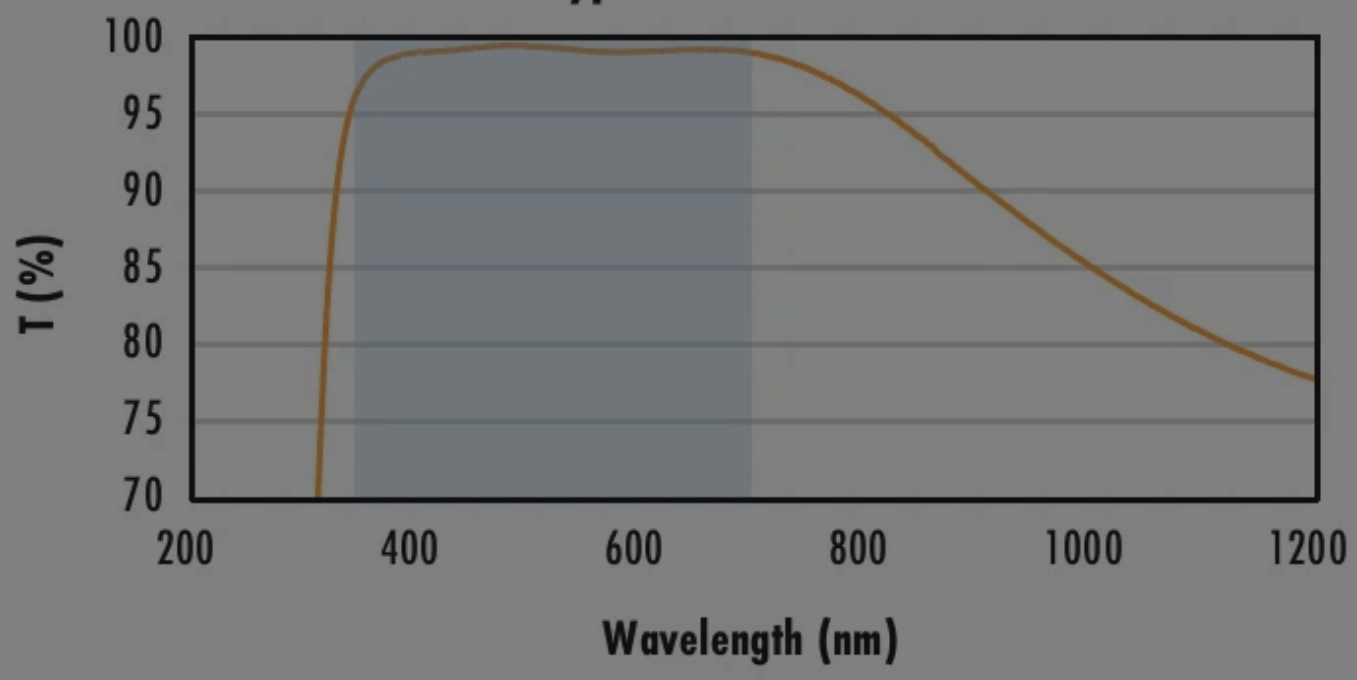

Typical transmission of a 3mm thick N-BK window with VIS-EXT (350-700nm) coating 0° AOI.

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

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

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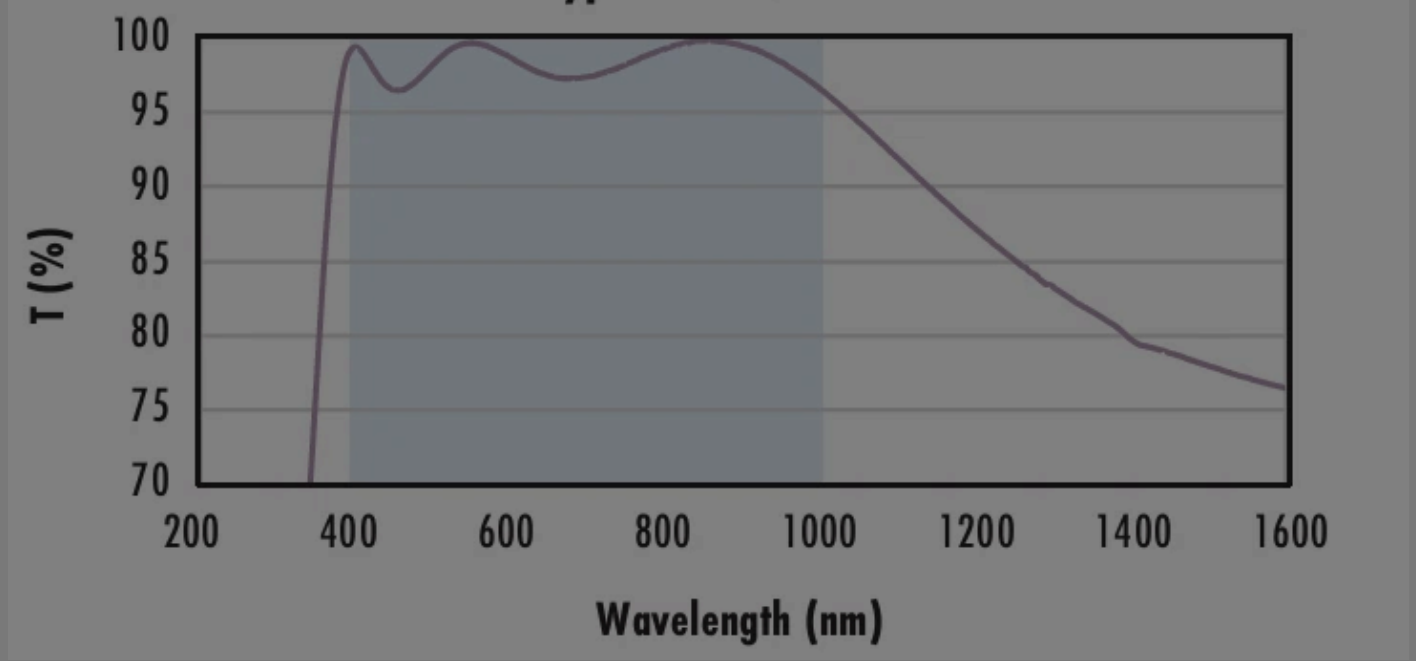

Typical transmission of a 3mm thick N-BK window with VIS-NIR (400-1000nm) coating 0° AOI.

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

$R_{abs} \leq 0.25\%$ @ 880nm
$R_{avg} \leq 1.25\%$ @ 400 - 870nm
$R_{avg} \leq 1.25\%$ @ 890 - 1000nm

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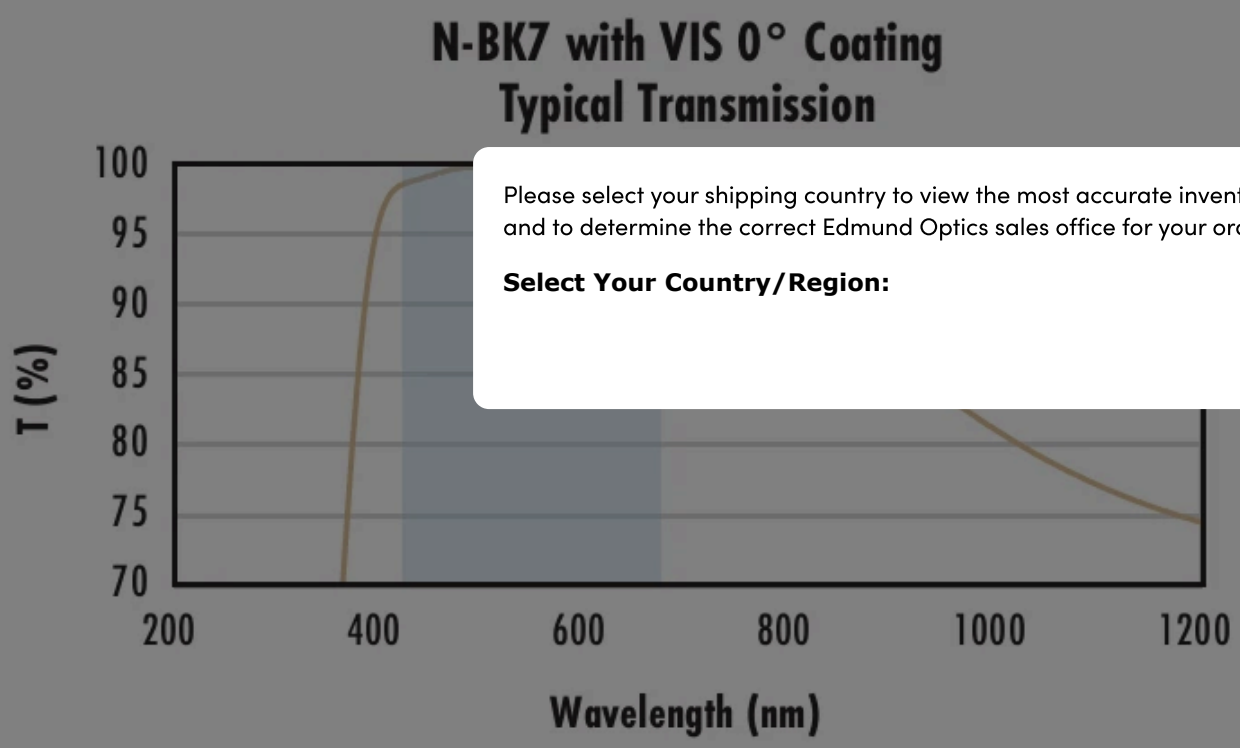

Typical transmission of a 3mm thick N-BK window with VIS 0° (425-675nm) coating 0° AOI.

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

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

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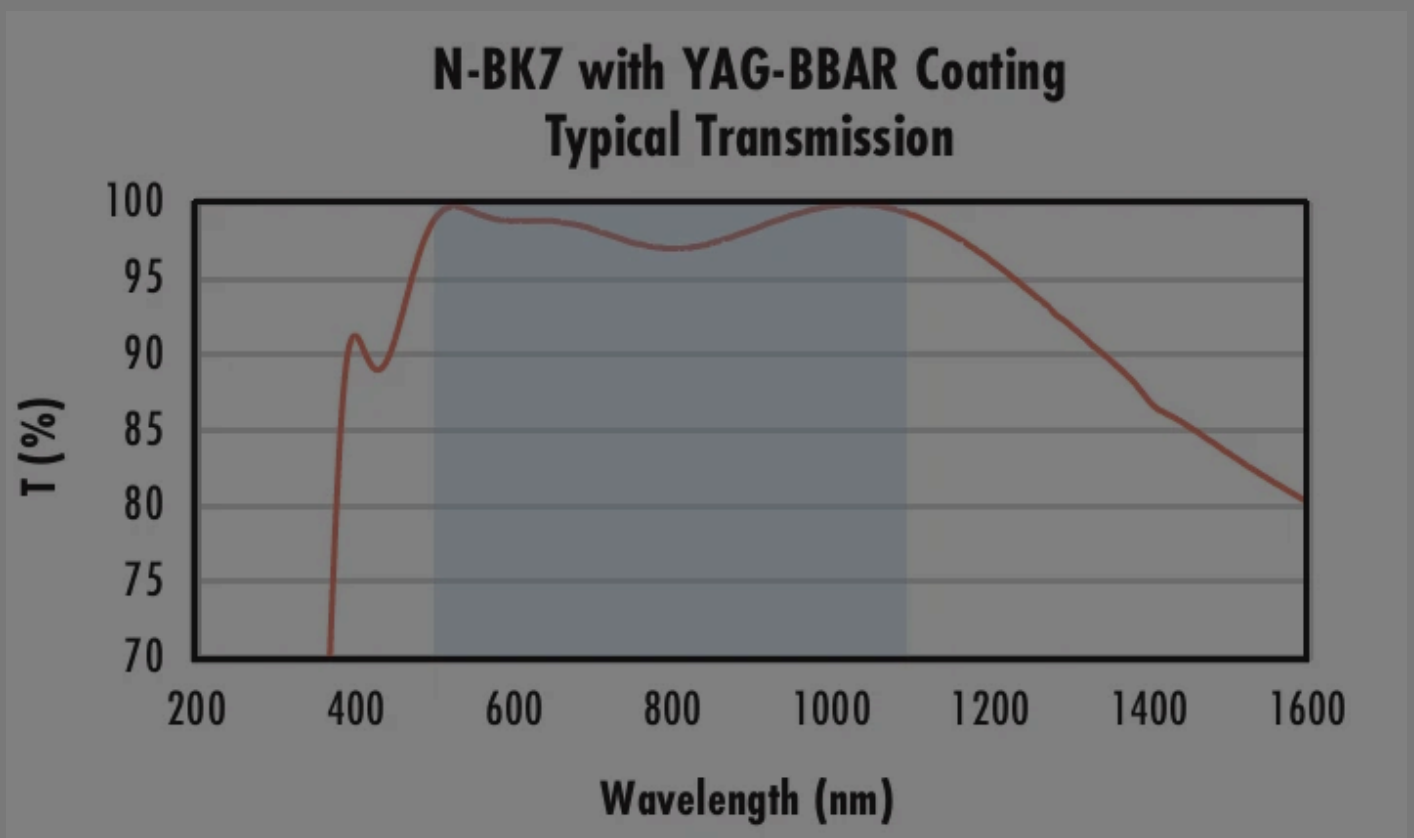

Typical transmission of a 3mm thick N-BK window with YAG-BBAR (500-1100nm) coatir 0° AOI.

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

$R_{abs} \leq 0.25\%$ @ 532nm
$R_{abs} \leq 0.25\%$ @ 1064nm
$R_{avg} \leq 1.0\%$ @ 500 - 1100nm

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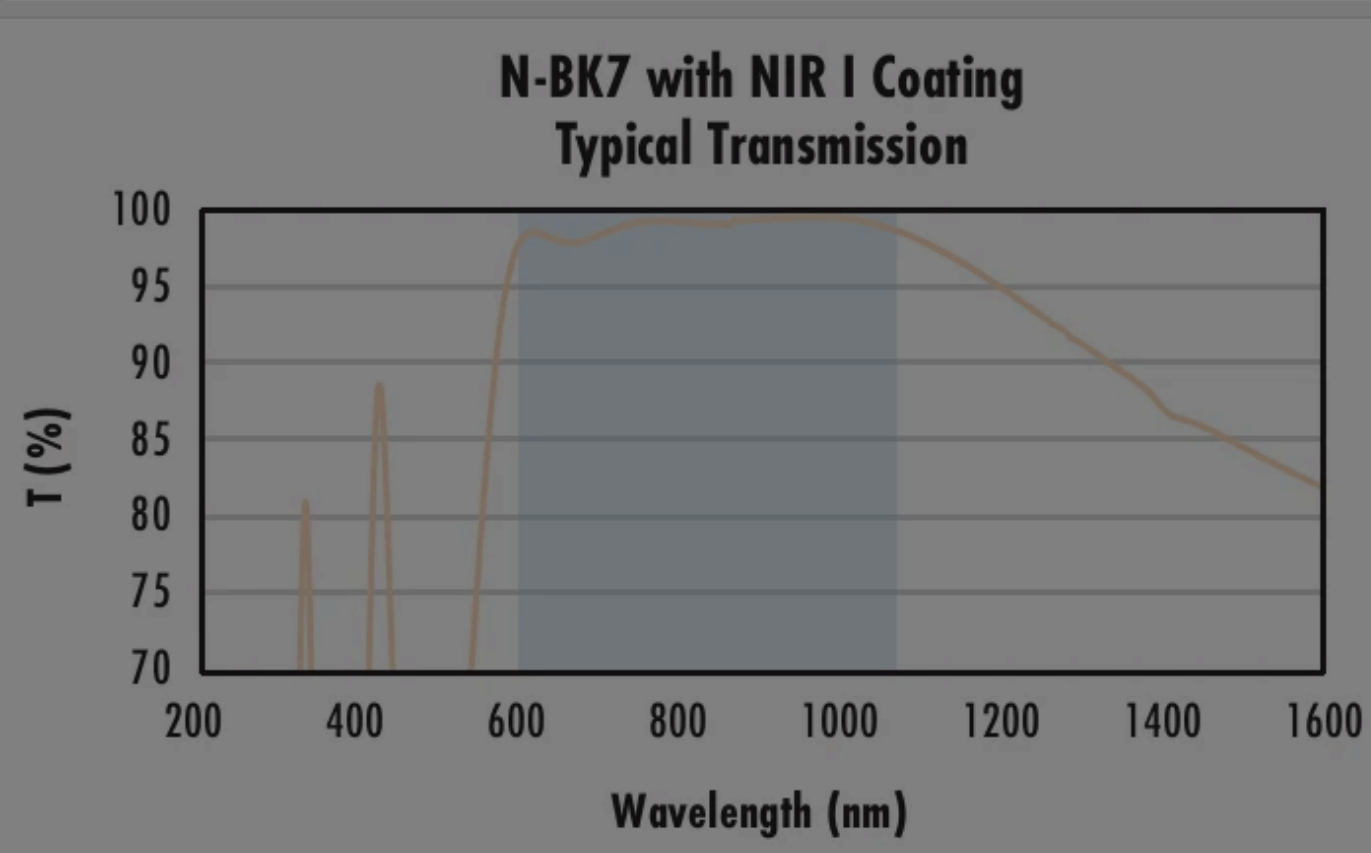

Typical transmission of a 3mm thick N-BK window with NIR I (600 - 1050nm) coating 0° AOI.

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

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

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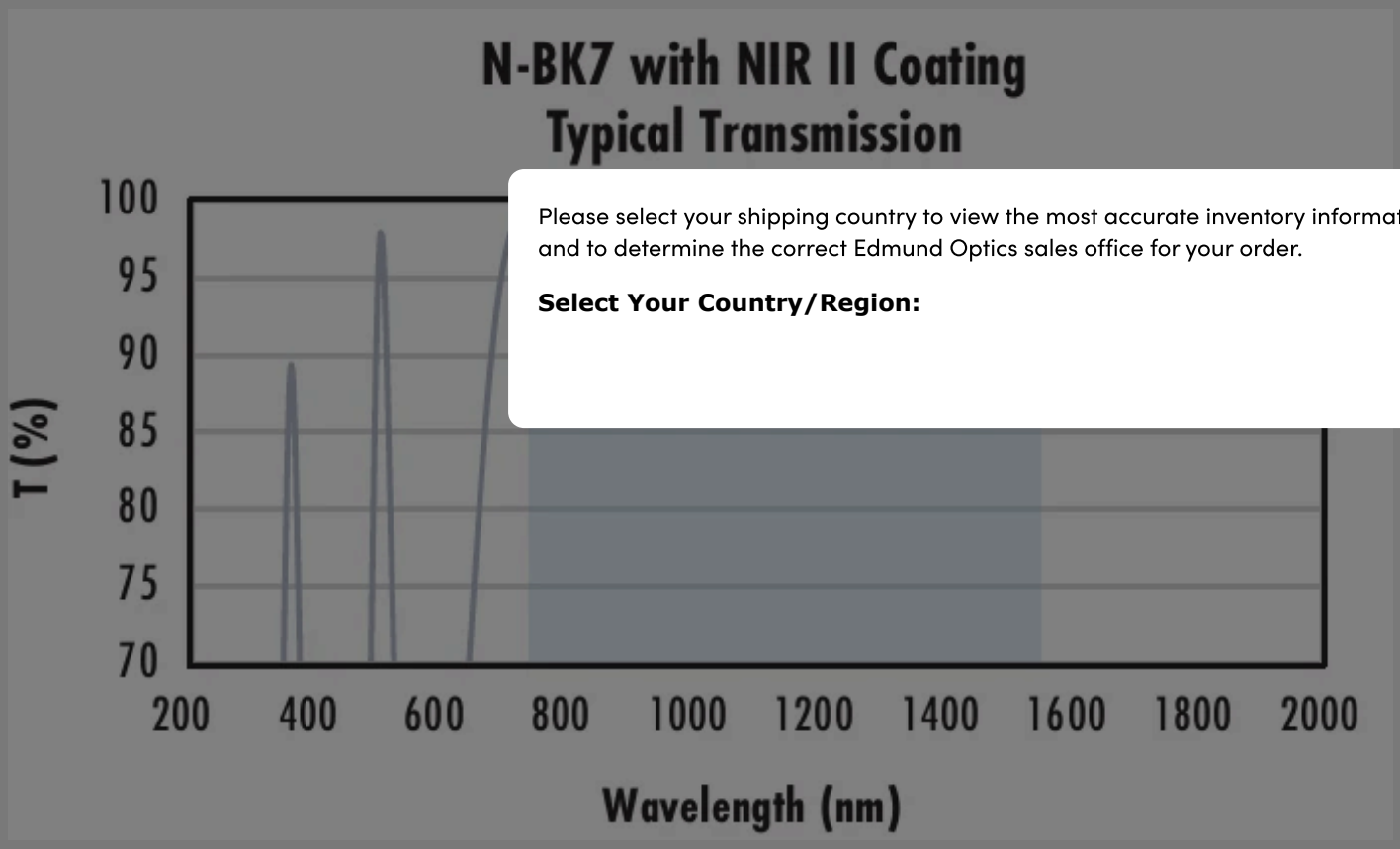

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Typical transmission of a 3mm thick N-BK window with NIR II (750 - 1550nm) coating 0° AOI.

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

$R_{abs} \leq 1.5\%$ @ 750 - 800nm
$R_{abs} \leq 1.0\%$ @ 800 - 1550nm
$R_{avg} \leq 0.7\%$ @ 750 - 1550nm

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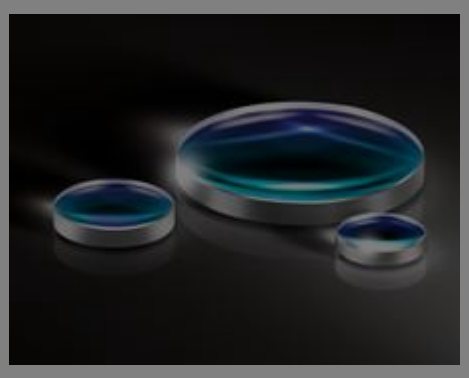
Related Products



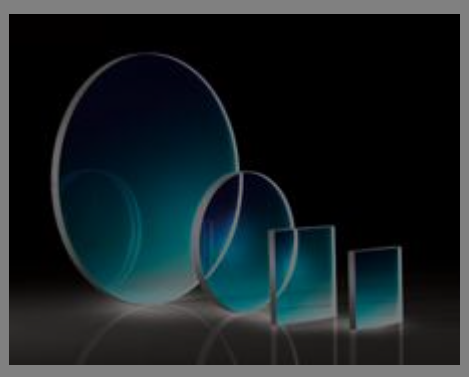
UV Fused Silica Double-Convex (DCX) Lenses

Uncoated Plano-Convex (PCX) Lenses

Plano-Convex (PCX) and Simple Lens Kits

Optical Lens and Filter Mounts

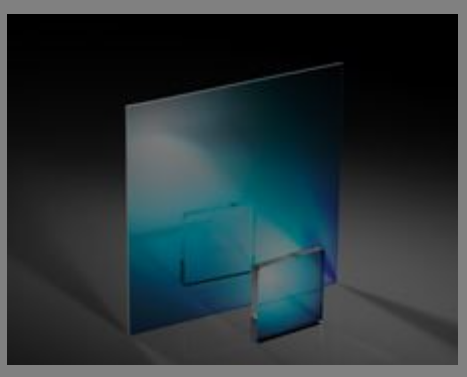
Frequently Purchased Together



#02-105 – 12.5mm Diameter Float Glass Window
€15,00
Qty

#27-501 – 100mm Dia x 200mm Focal Length, PCX Condenser Lens
€126,00
Qty

#27-502 – 100mm Dia x 300mm Focal Length, PCX Condenser Lens
€108,00
Qty



#31-433 – 51 x 76mm, 50R/50T, Plate Beamsplitter
€93,00
Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	40.0mm Optic Dia., Optic Mount	Fixed		#64-566	€32,75 Request Quote	10 In Stock 1
MORE+ 	40mm Diameter, T-Mount Thin Optic Mount	Fixed		#57-976	€72,00 Request Quote	5 In Stock 1

Check out our full selection of mounts **here**.

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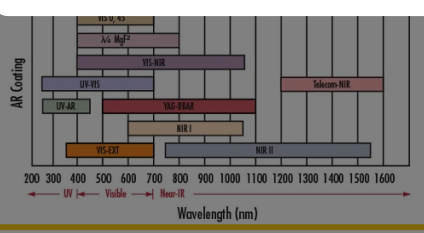
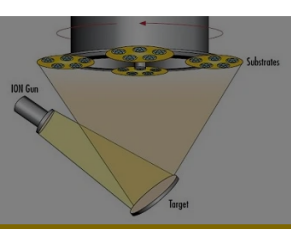
Media Type

- Application Note
- Technical Tool
- Trending in Optics
- FAQ
- Glossary
- Video



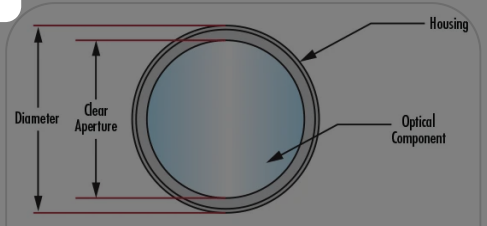
APPLICATION NOTE

Anti-Reflection (AR) Coatings



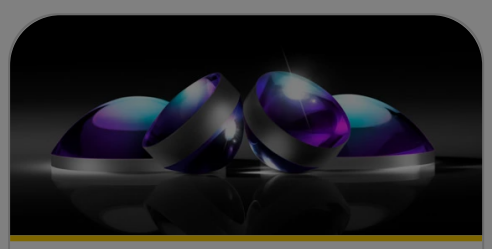
APPLICATION NOTE

An Introduction to Optical Coatings



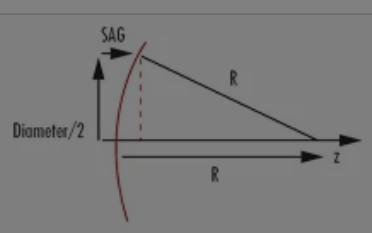
APPLICATION NOTE

Understanding Optical Specifications



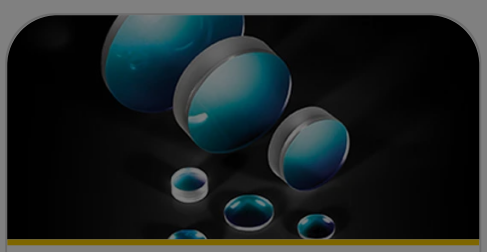
APPLICATION NOTE

Lens Geometry Performance Comparison



TECHNICAL TOOL

SAG Calculator



TRENDING IN OPTICS

Future of Spherical Lenses

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