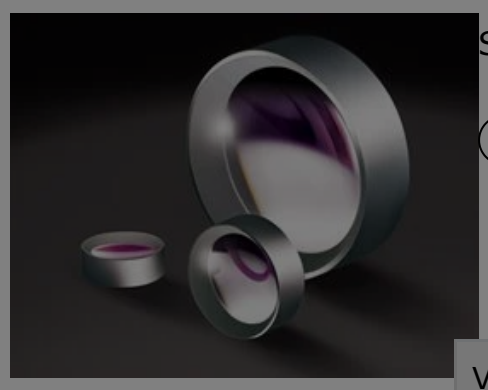
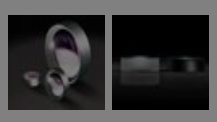
TECHSPEC® 12.0mm ...Concave Lens





- 1 +

€51,00

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Volume Pricing	
Qty 1-9	**€51,00** each
Qty 10-25	**€45,75** each
Qty 26-49	**€40,75** each
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Prices shown are exclusive of VAT/local taxes

Product Downloads

- STEP:step
- Curve:pdf
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Curve (xslx):xlsx
- Zemax:zar
- Zemax:zmx
- eDrawing:eprt
- Code V:seq
- EO Spec Sheet
- **Download All**

General

Type:	Plano-Concave Lens

Physical & Mechanical Properties

Diameter (mm):	12.00	**Bevel:**	Protective as needed
Center Thickness CT (mm):	3.50 ±0.05	**Centering (arcmin):**	<1
Clear Aperture CA (mm):	11.00	**Edge Thickness ET (mm):**	4.70

Optical Properties

Effective Focal Length EFL (mm):	-18.00	**Substrate:** ⓘ	**N-SF11**
f/#:	1.00	**Numerical Aperture NA:**	0.33
Coating:	YAG-BBAR (500-1100nm)	**Wavelength Range (nm):**	500 - 1100
Back Focal Length BFL (mm):	-19.95	**Coating Specification:**	R_{abs} <0.25% @ 532nm R_{abs} <0.25% @ 1064nm R_{avg} <1.0% @ 500 - 1100nm
Focal Length Specification Wavelength (nm):	587.6	**Focal Length Tolerance (%):**	±1

Radius R_1 (mm):	-14.12	**Surface Quality:**	40-20
Damage Threshold, By Design: ⓘ	5 J/cm^2 @ 532nm, 10ns	**Power (P-V) @ 632.8nm:**	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4		

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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

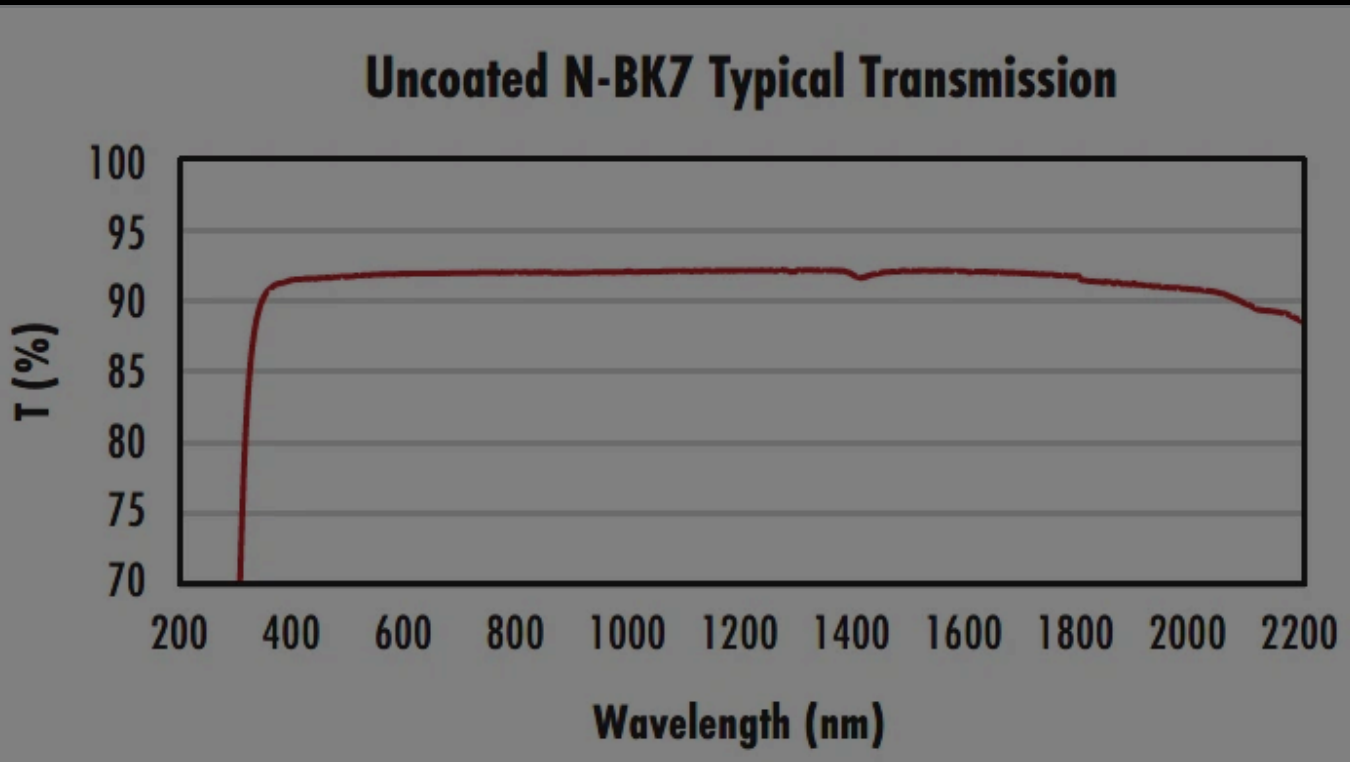
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

Product Details

- Negative Focal Lengths for Beam Expansion or Light Projection Applications
- Optimized for R<0.25% at both 532nm and 1064nm
- AR Coated to Provide <1.0% Reflectance per Surface for 500 - 1100nm
- Various Coating Options: **Uncoated**, **VIS-EXT**, **MgF_2**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, and **1064nm V-Coat**

TECHSPEC® YAG-BBAR Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® YAG-BBAR Coated Plano-Concave (PCV) Lenses feature less than 0.25% reflection at common Nd:YAG laser wavelengths of 532nm and 1064nm. These lenses are also available **Uncoated**, **VIS-EXT**, **MgF_2**, **VIS 0°**, **VIS-NIR**, **NIR I**, or with **NIR II** AR coating options.

Technical Information



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

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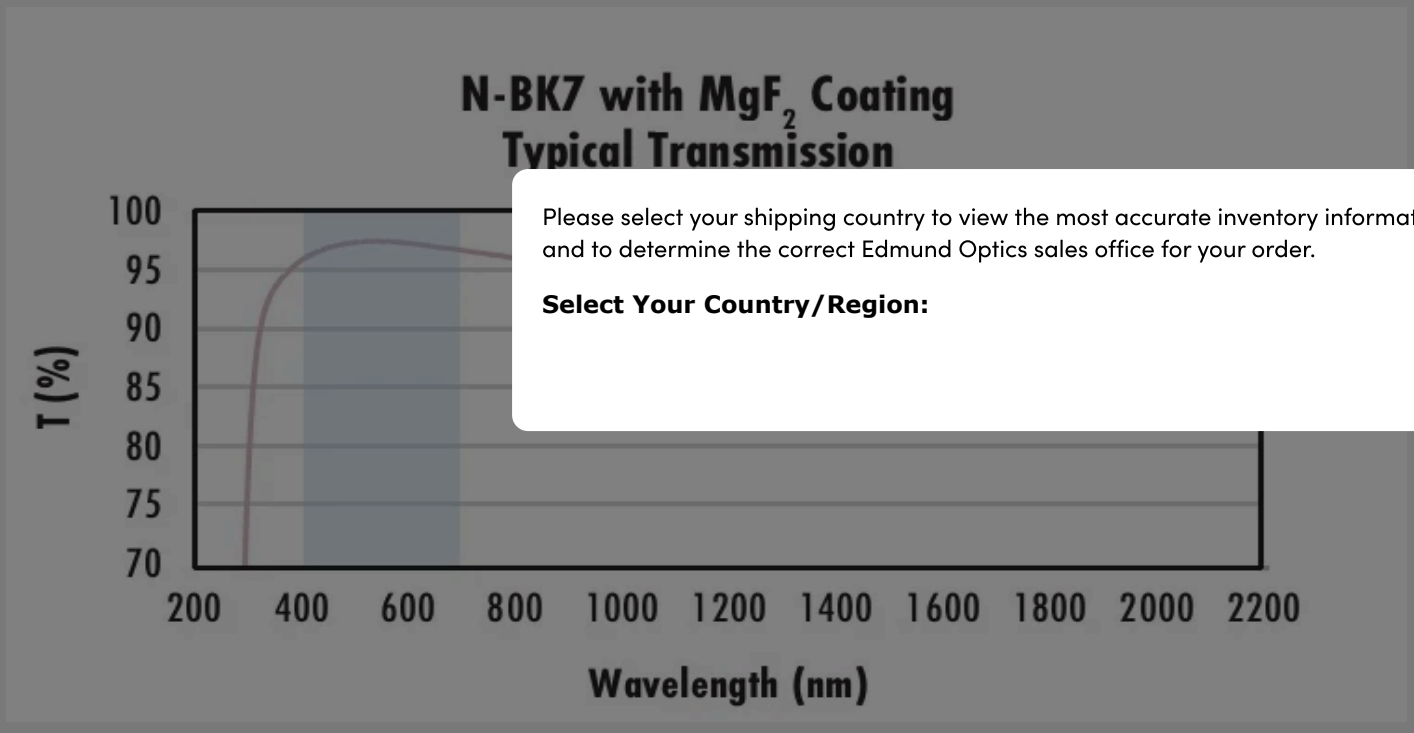

ical transmission of a 3mm thick N-BK7 window w
MgF2 (400-700nm) coating at 0° AOI.

he 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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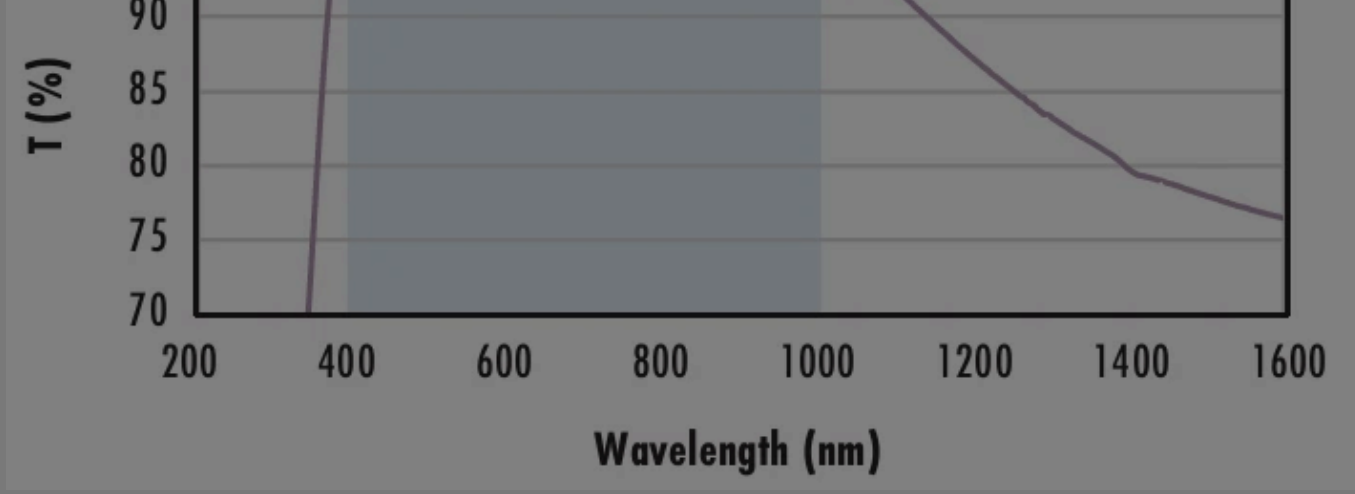

Typical transmission of a 3mm thick N-BK7 window w
VIS-EXT (350-700nm) coating at 0° AOI.

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
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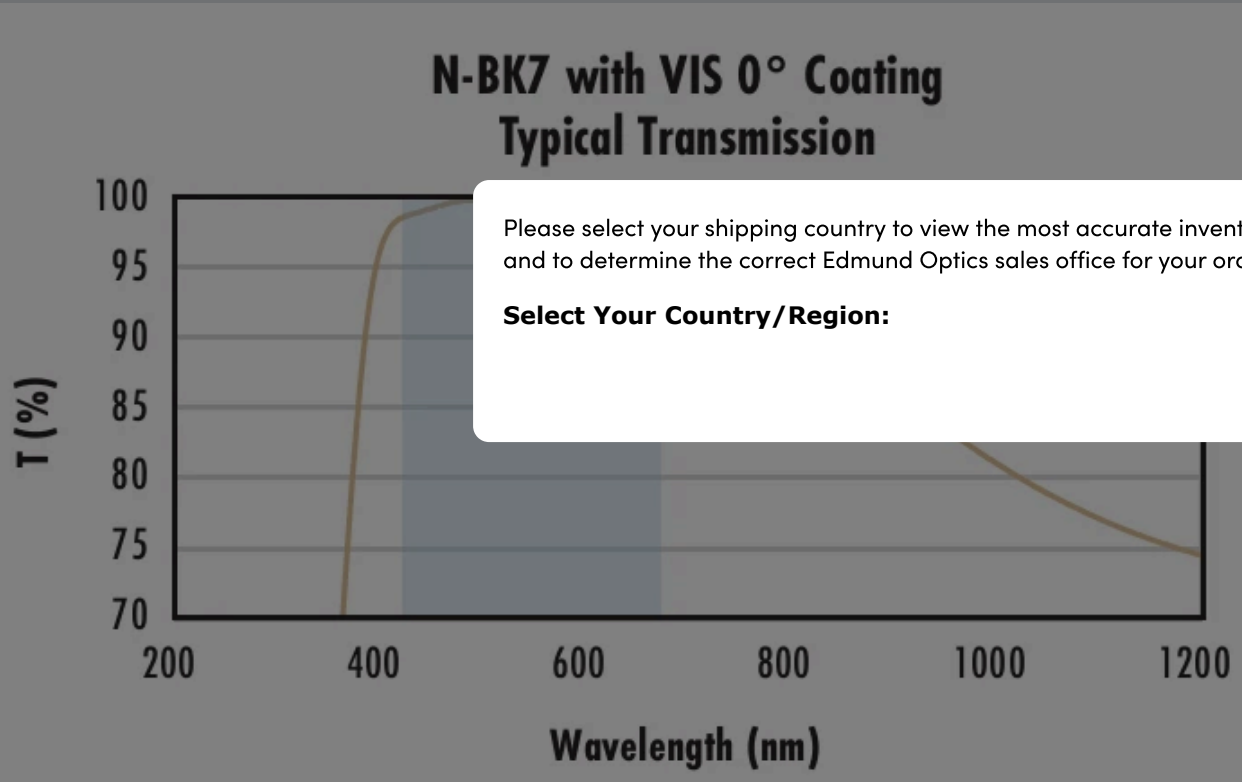

al transmission of a 3mm thick N-BK7 window wit
0° (425-675nm) coating at 0° AOI.

he 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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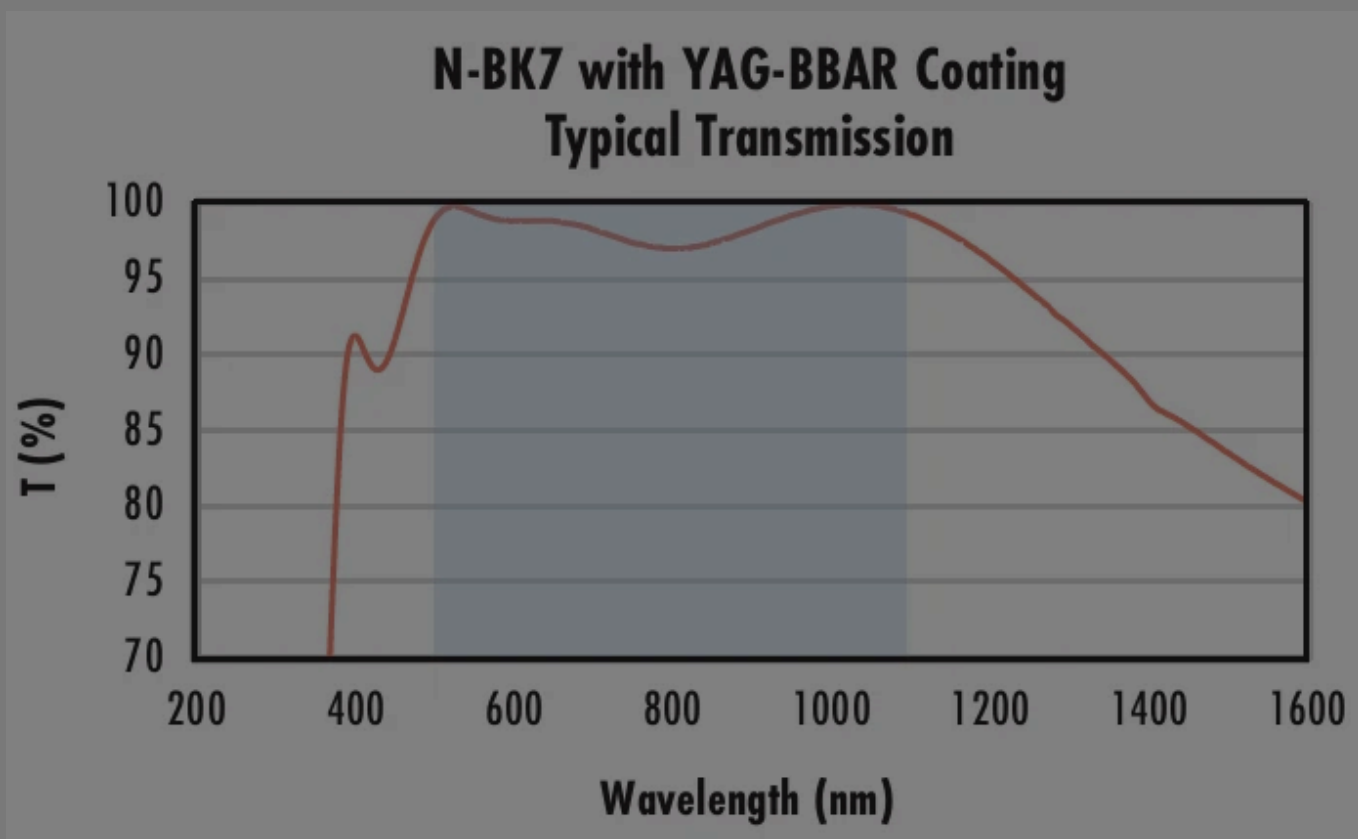

Typical transmission of a 3mm thick N-BK7 window w
YAG-BBAR (500-1100nm) coating at 0° AOI.

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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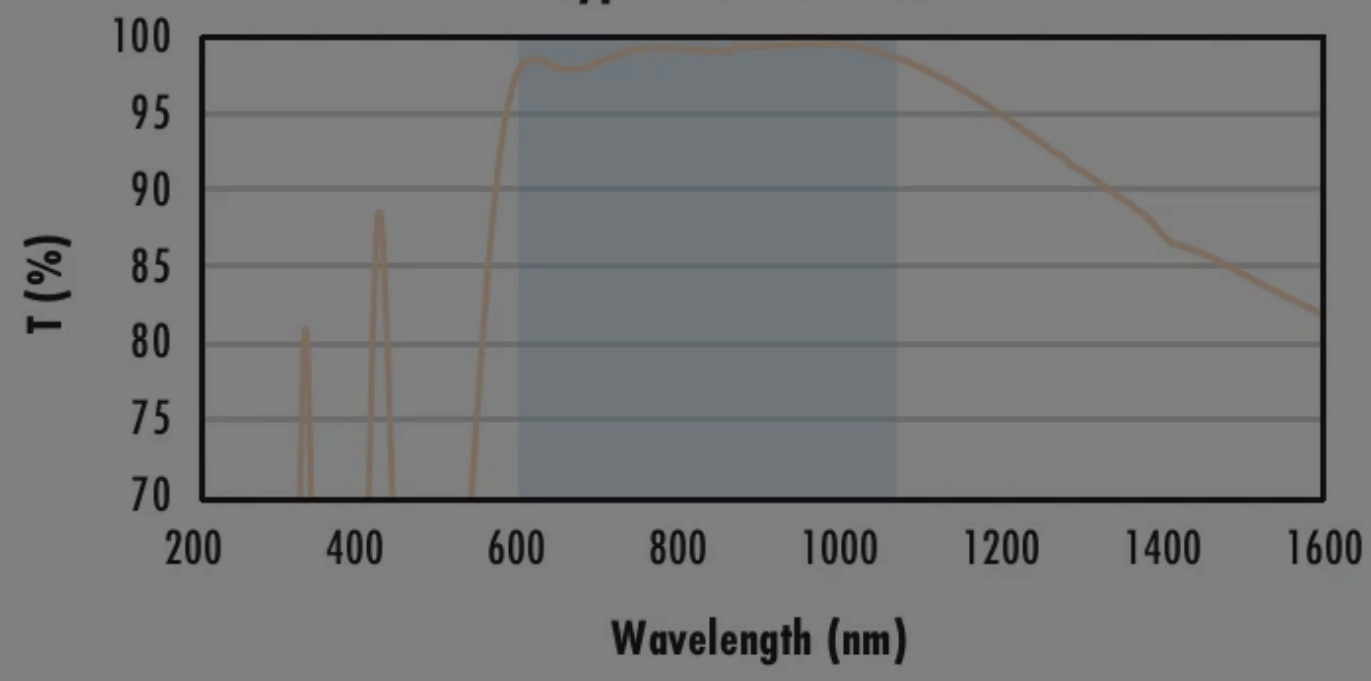

Typical transmission of a 3mm thick N-BK7 window witl
I (600 - 1050nm) coating at 0° AOI.

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
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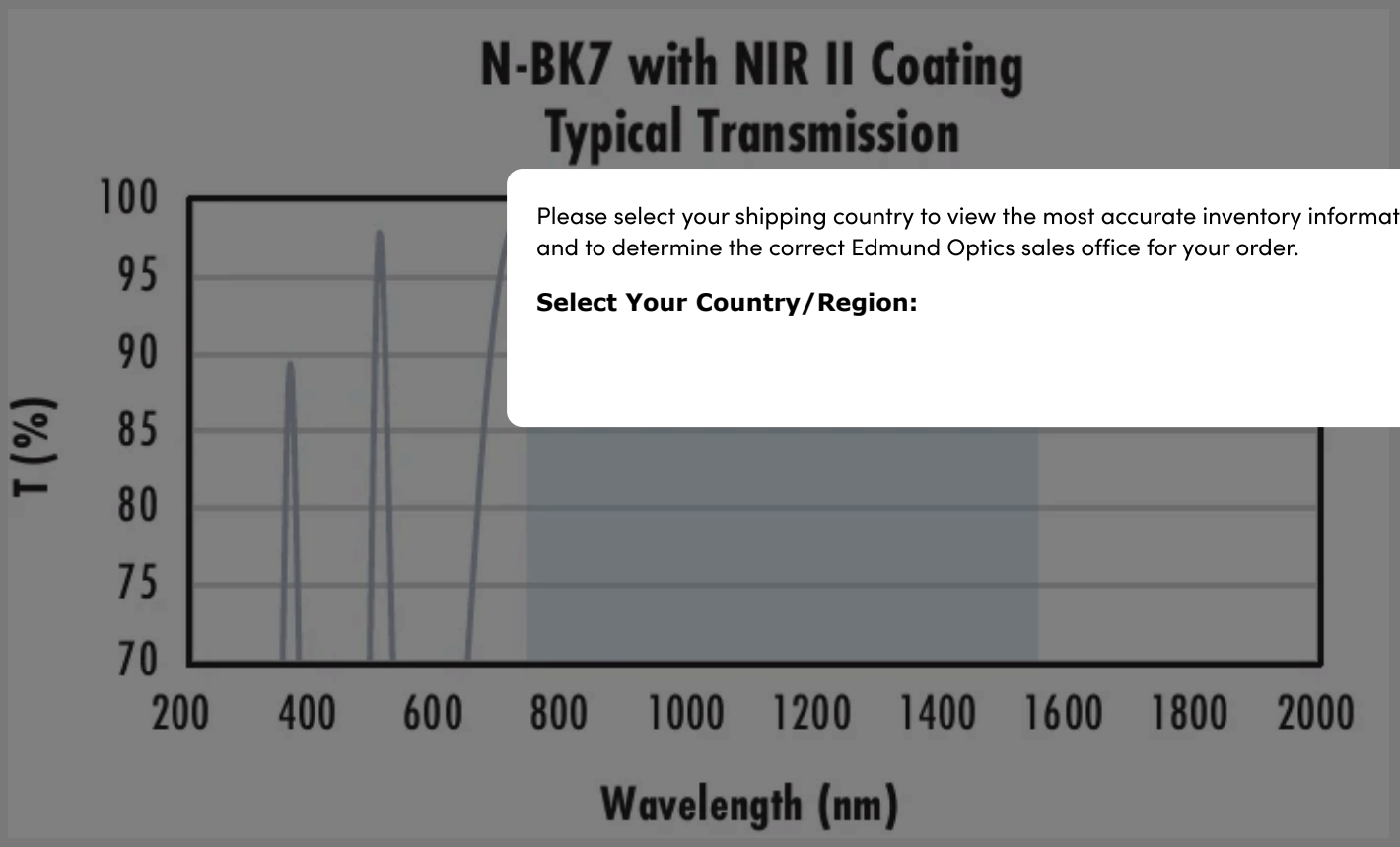

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al transmission of a 3mm thick N-BK7 window witl
II (750 - 1550nm) coating at 0° AOI.

he blue shaded region indicates the coating desig
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

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reference only.

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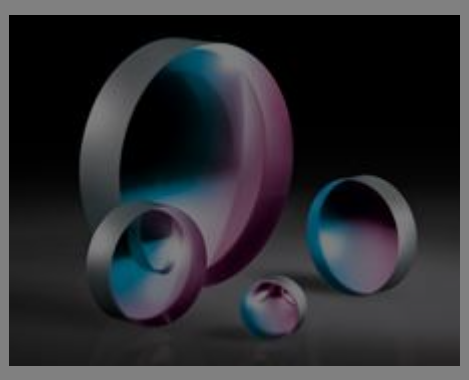
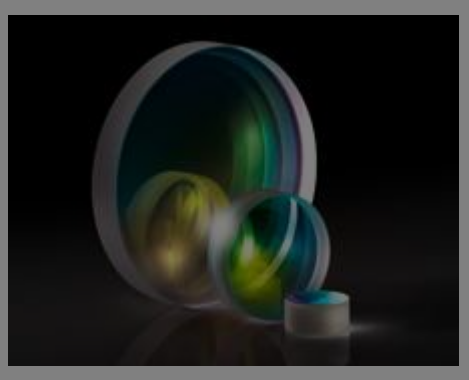
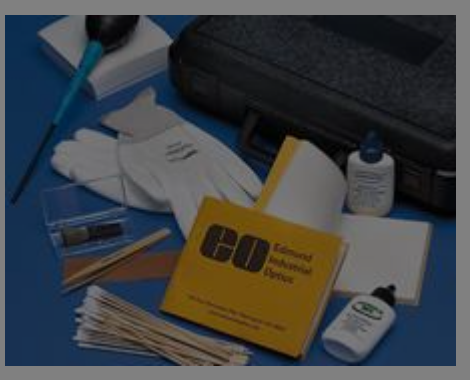


Plano-Concave (PCV) Lenses



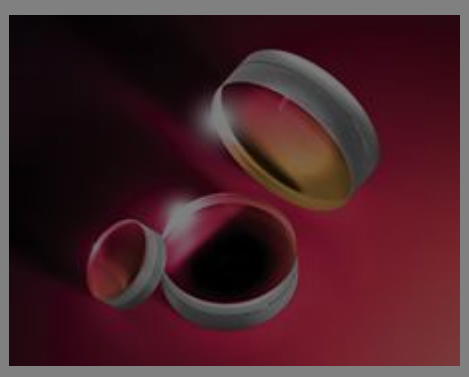
1064nm Laser Line Coated UV Fused Silica Plano-Concave (PCV) Lenses

Laser Lenses



Optical Cleaning

Frequently Purchased Together



#33-210 – 25mm Dia. x 75mm FL, YAG-BBAR Coated, Achromatic Lens
€128,00
Qty

#34-183 – 12.0mm Dia. x 36.0mm FL, YAG-BBAR Coated, Plano-Convex Lens
€50,00
Qty

#65-543 – 12.0mm Diameter x 60.0mm FL, 1064nm V-Coat, PCX Lens
€53,00
Qty

#69-620 – 25.0mm Diameter x 60.0mm FL, 1064nm V-Coat, PCX Lens
€59,00
Qty

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Gaussian Beams Calculator

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