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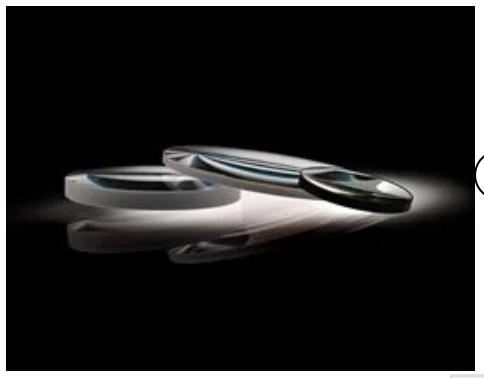
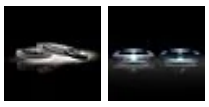
TECHSPEC® 18mm Dia. x 18mm FL, Uncoated, Double-Convex Lens





Stock #63-547 20+ In Stock

Other Coating Options

- 1 +

£28.00

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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

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General

Type:	Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	18.00 +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):**	1.44
Clear Aperture CA (mm):	17.00		

Optical Properties

Back Focal Length BFL (mm):	16.69	**Effective Focal Length EFL (mm):**	18.00
Coating:	Uncoated	**Substrate:** ⓘ	N-SF11
Surface Quality:	40-20	**Power (P-V) @ 632.8nm:**	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4	**Radius R_1=-R_2 (mm):**	27.22
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**		

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

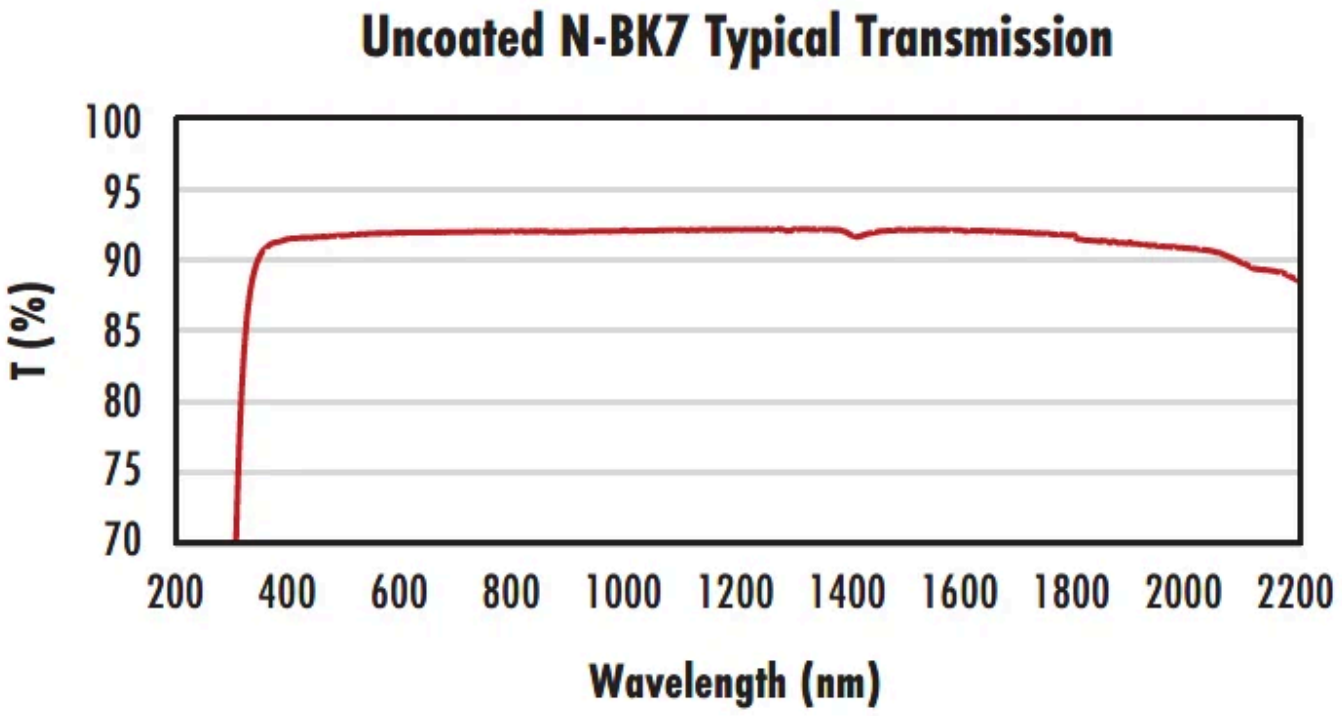
Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**

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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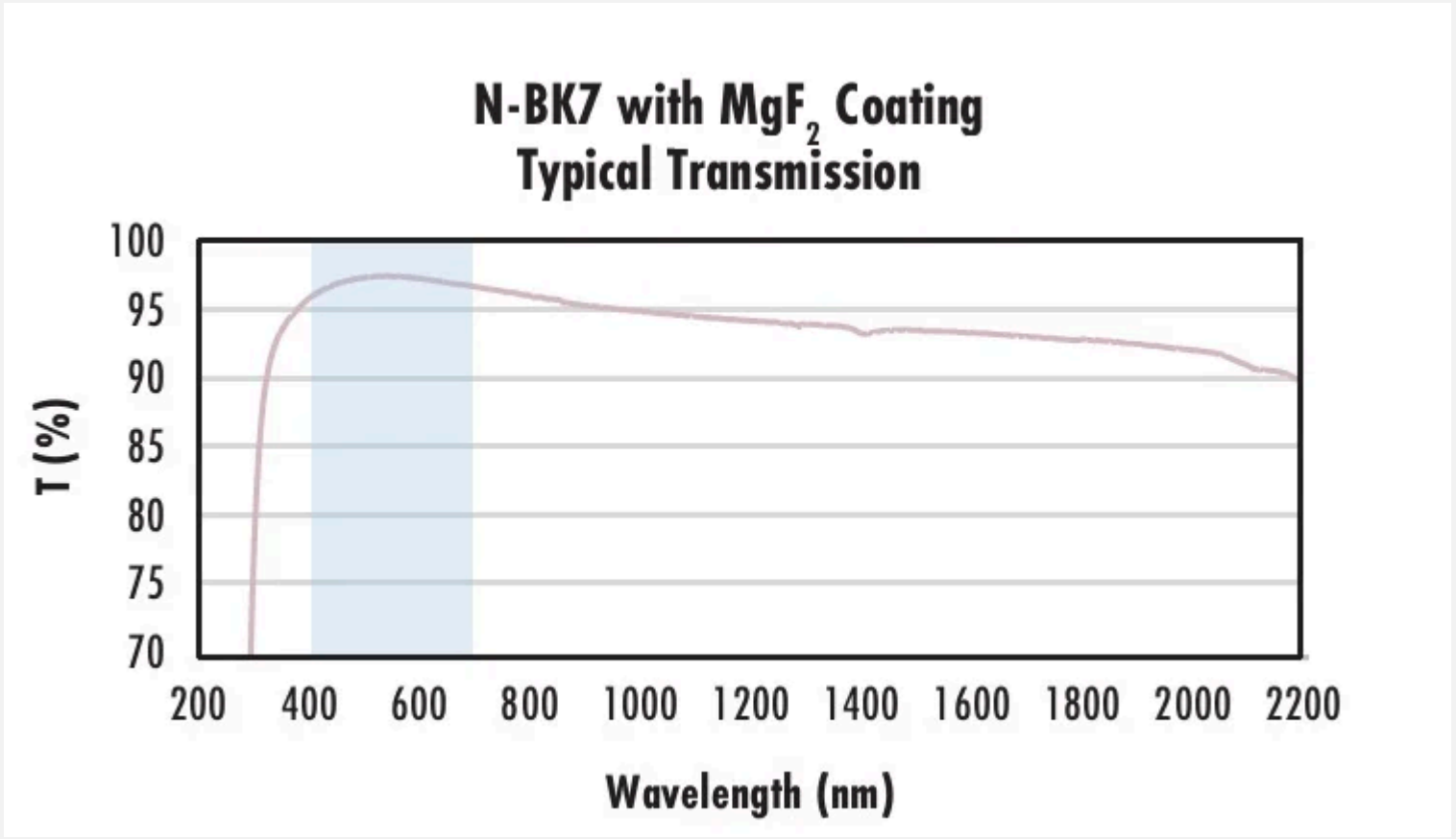

Typical transmission of a 3mm thick N-BK window with MgF2 (400-700nm) coating 0° AOI.

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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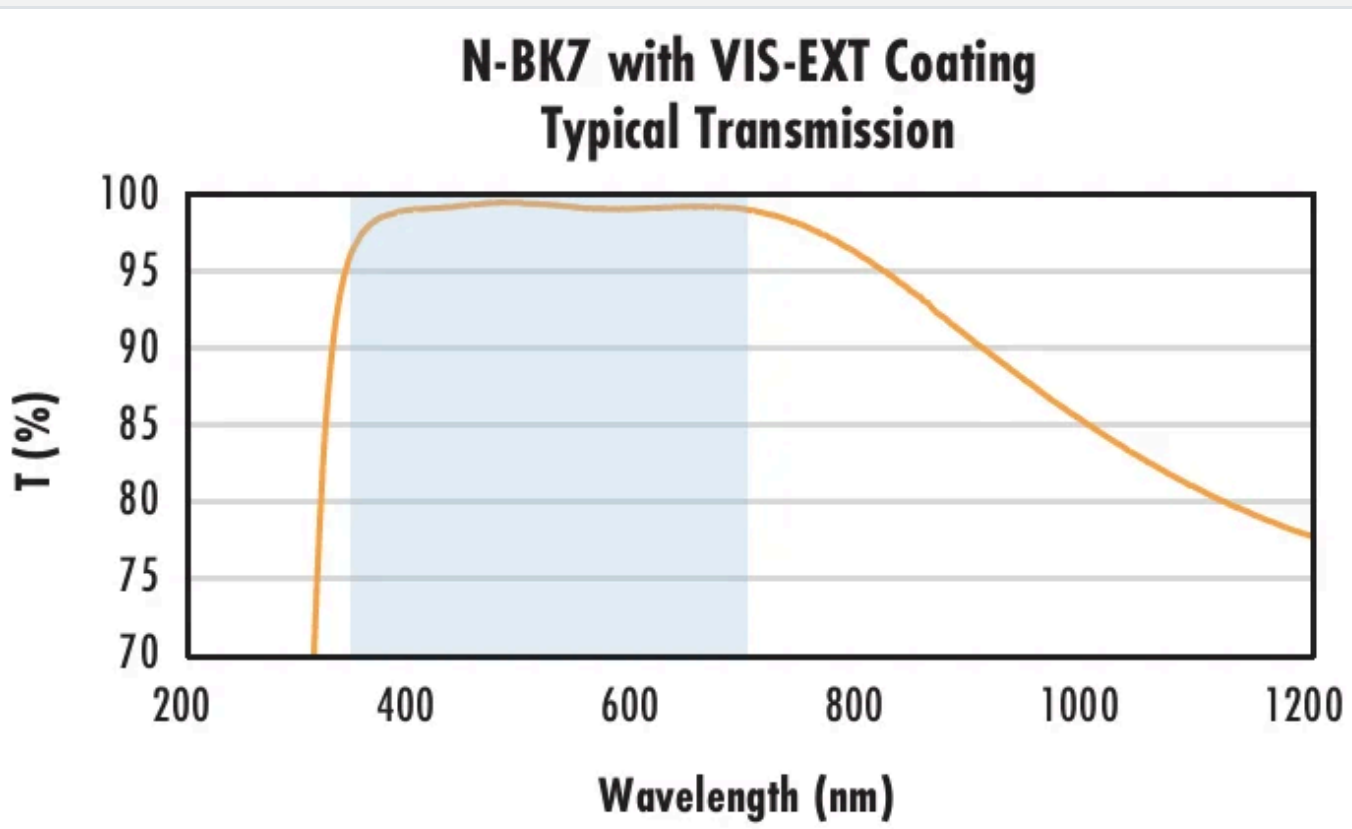

Typical transmission of a 3mm thick N-BK window with VIS-EXT (350-700nm) coating 0° AOI.

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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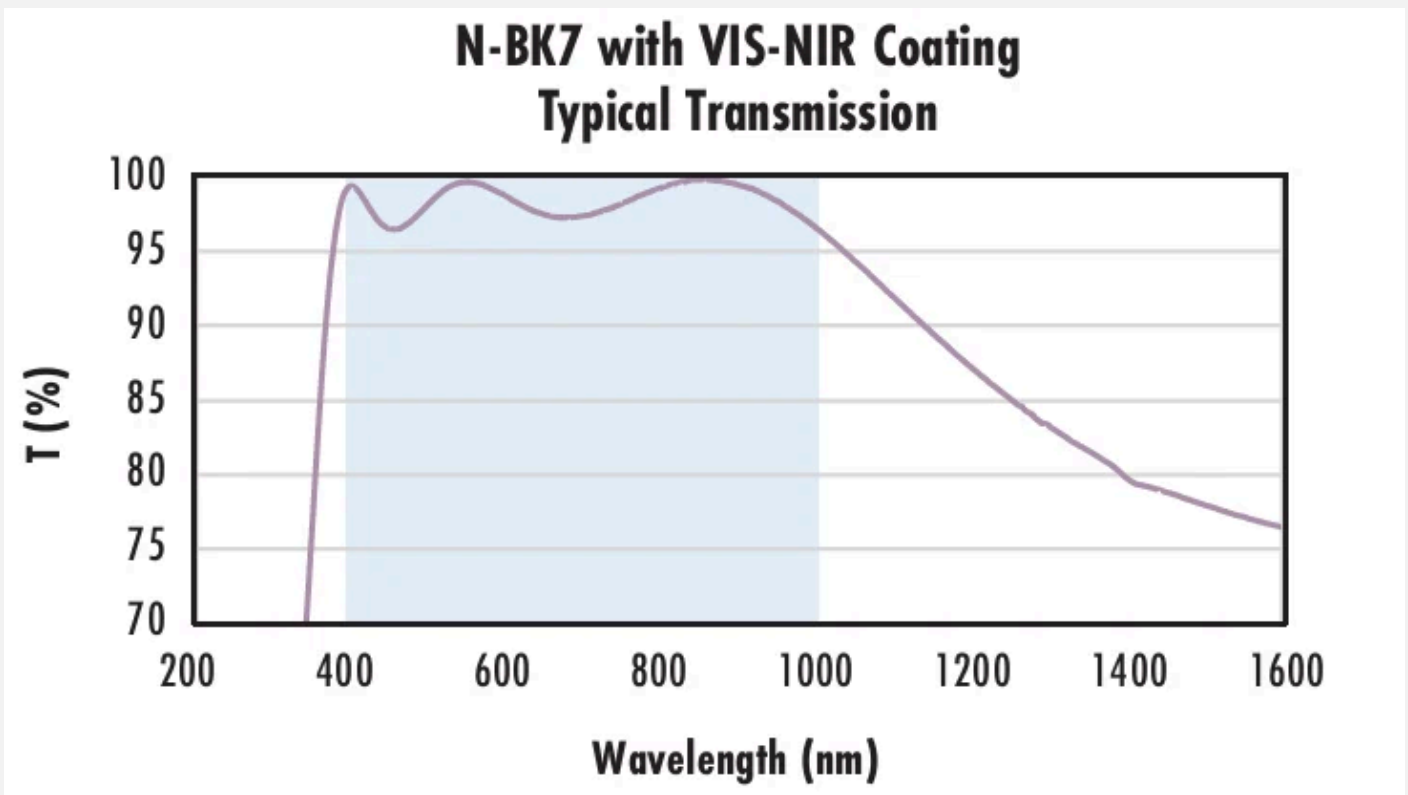

Typical transmission of a 3mm thick N-BK window with VIS-NIR (400-1000nm) coating 0° AOI.

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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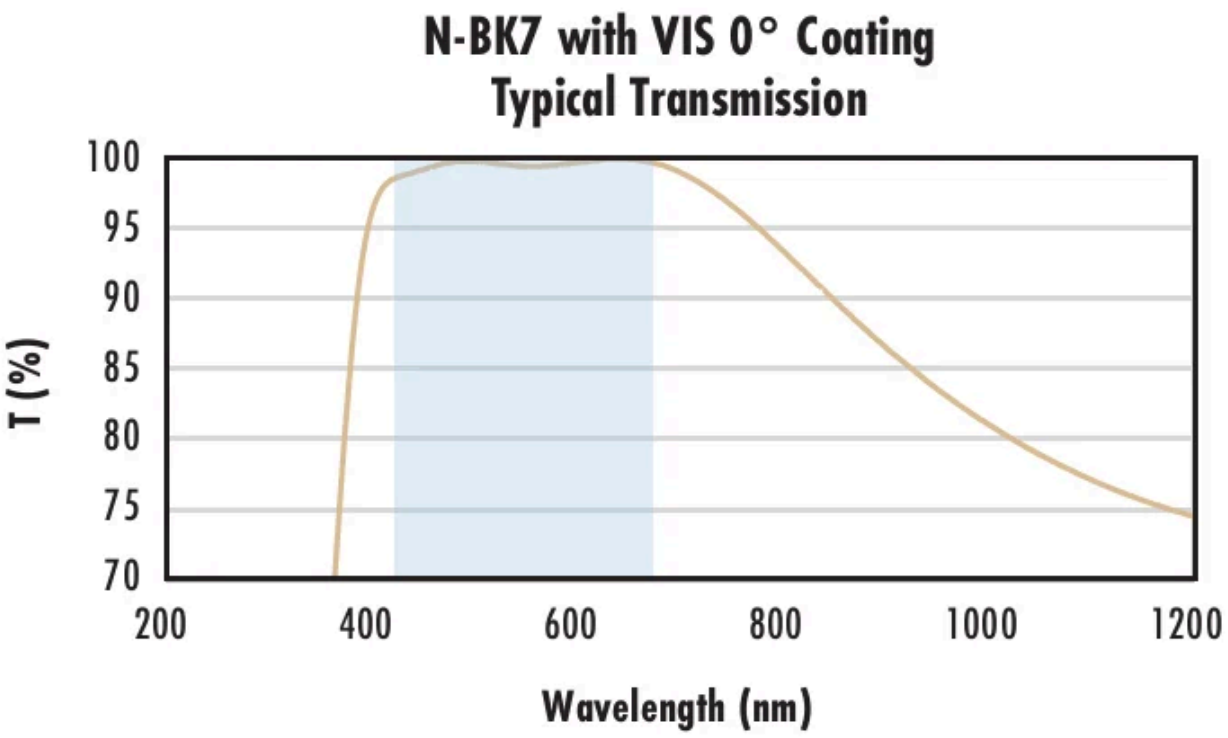

Typical transmission of a 3mm thick N-BK window with VIS 0° (425-675nm) coating a 0° AOI.

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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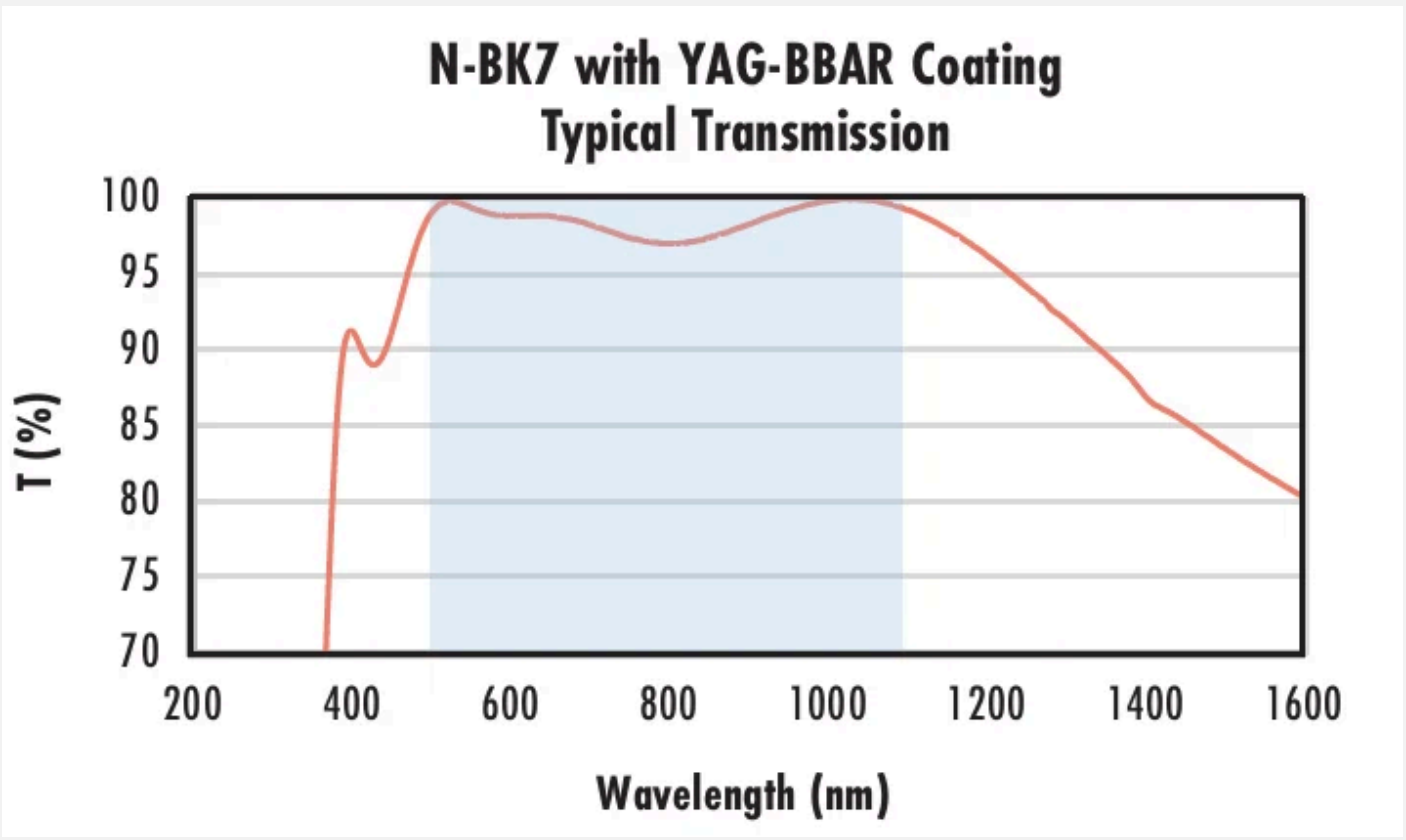

Typical transmission of a 3mm thick N-BK window with YAG-BBAR (500-1100nm) coatir 0° AOI.

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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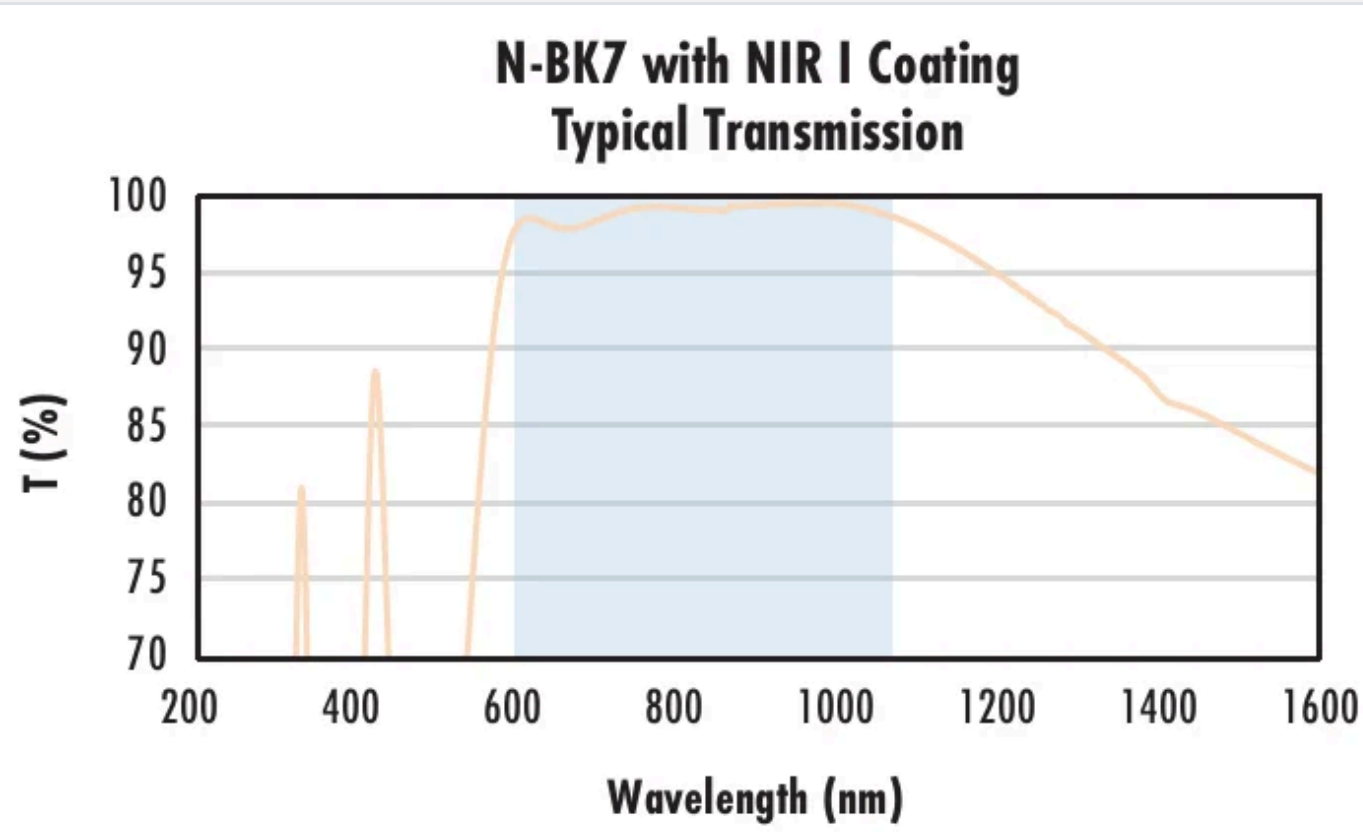

Typical transmission of a 3mm thick N-BK window with NIR I (600 - 1050nm) coating 0° AOI.

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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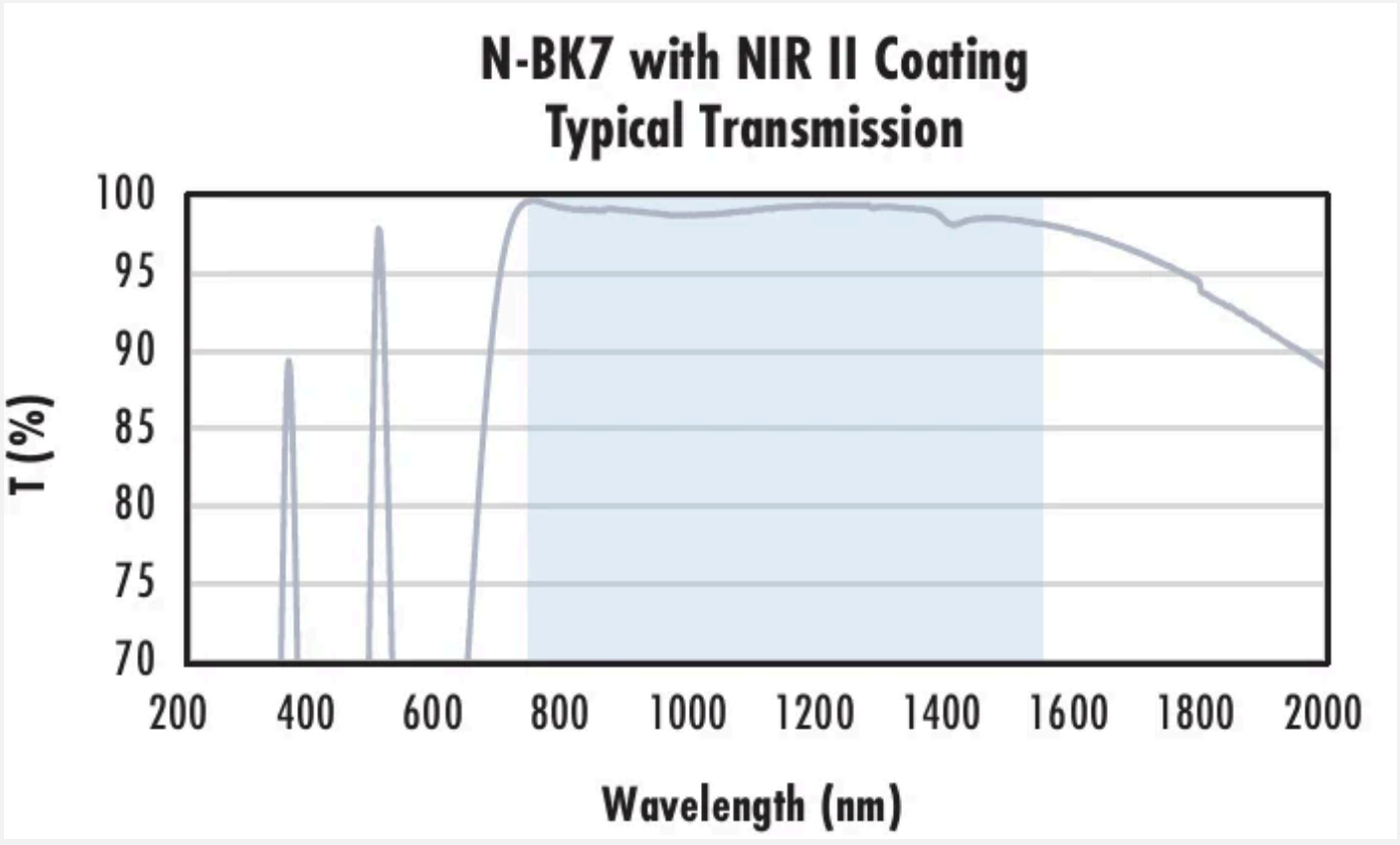

Typical transmission of a 3mm thick N-BK window with NIR II (750 - 1550nm) coating 0° AOI.

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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Uncoated Plano-Convex (PCX) Lenses

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Optical Lens and Filter Mounts

Frequently Purchased Together

#32-489 - 25mm Dia. x 25mm FL Uncoated, Double-Convex Lens
£29.20
Qty

#32-014 - 12mm Dia. x 12mm FL Uncoated, Double-Convex Lens
£28.00
Qty

#32-018 - 9mm Dia. x 9mm FL Uncoated, Double-Convex Lens
£26.60
Qty

#32-012 - 12mm Dia. x 18mm FL Uncoated, Double-Convex Lens
£27.20
Qty

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