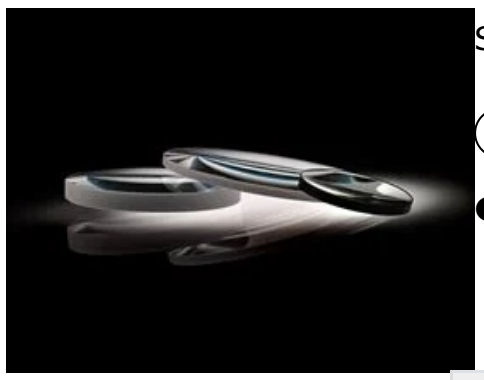
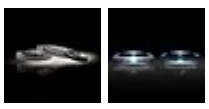
TECHSPEC®

40mm Dia. x 80mm FL VIS-EXT Coated, Double-Convex Lens





Stock #34-191 CONTACT US Other Coating Options

- 1 +

MRP ₹8,020

Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1-9	₹8,020 each
Qty 10-24	₹7,264 each
Qty 25-99	₹6,406 each
Need More?	Request Quote

Product Downloads

STEP:stp | 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:	Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	40.00 +0.000/-0.025	**Centering (arcmin):**	<1.07
Bevel:	Protective as needed	**Center Thickness CT (mm):**	8.00
Center Thickness Tolerance (mm):	±0.10	**Edge Thickness ET (mm):**	3.00
Clear Aperture CA (mm):	39.00		

Optical Properties

Back Focal Length BFL (mm):	77.32	**Effective Focal Length EFL (mm):**	80.00
Coating:	VIS-EXT (350-700nm)	**Coating Specification:**	R_{avg} <0.5% @ 350 - 700nm
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):	81.3	**f/#:**	2.00

Focal Length Specification Wavelength (nm):	587.6	**Focal Length Tolerance (%):**	±1
Numerical Aperture NA:	0.25	**Wavelength Range (nm):**	350 - 700

Regulatory Compliance

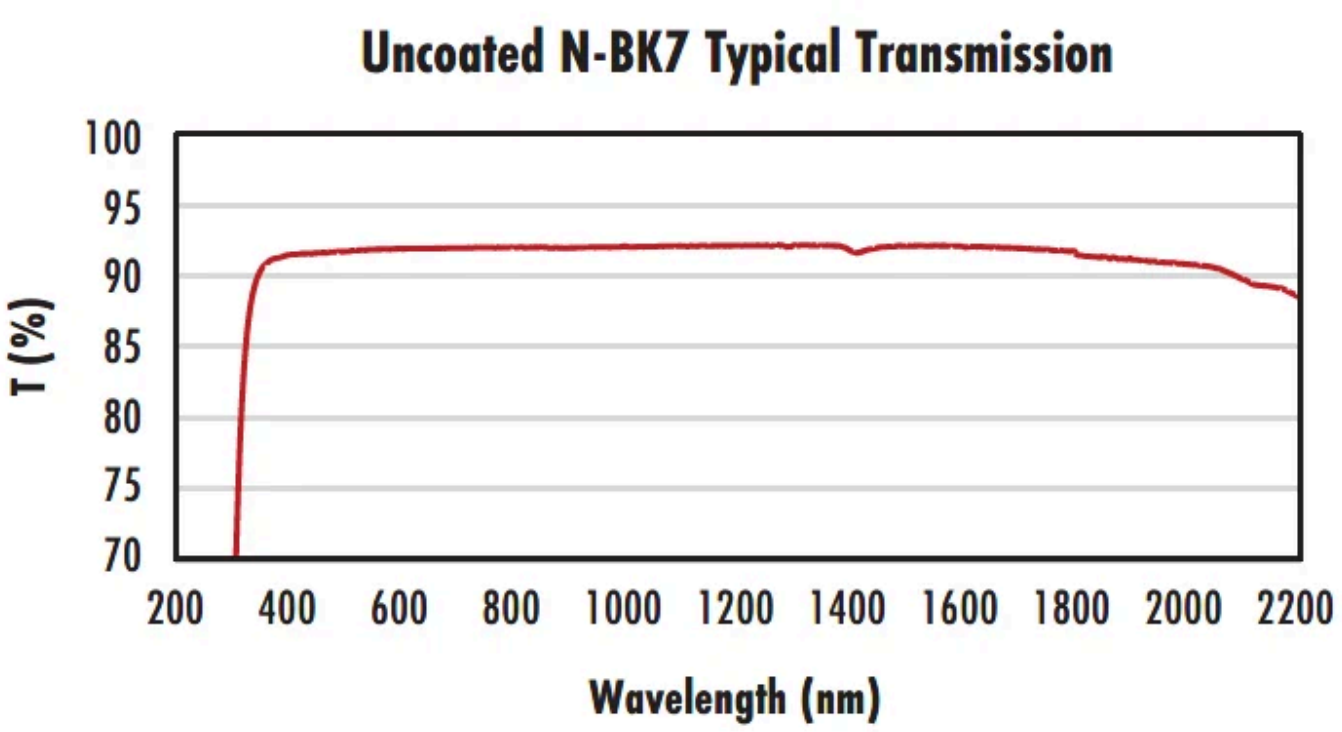
RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 235:	**Compliant**		
Country of Origin:	Japan	**Imported By:**	Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91-80-6845 0000

Product Details

- AR Coated to Provide <0.5% Reflectance per Surface for 350 - 700nm
- Minimize Aberrations Including Spherical and Coma
- **UV Fused Silica DCX Lenses** Available
- Other Coating Options Available: **Uncoated**, **MgF_2**, **VIS 0°**, **NIR I**, **NIR II**, **VIS-NIR**, and **YAG-BBAR**

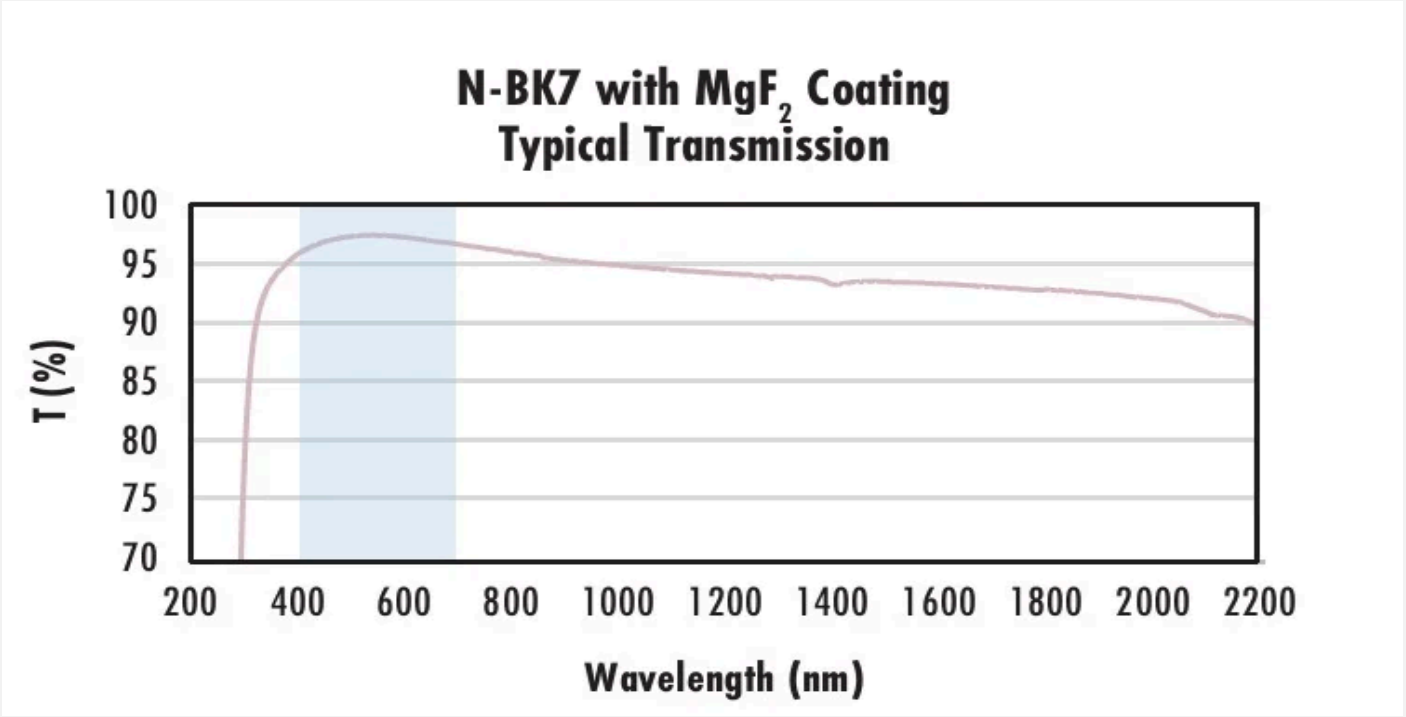
TECHSPEC® VIS-EXT Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or cancelled due to the symmetric lens design. TECHSPEC VIS-EXT Coated Double-Convex 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, uncoated N-BK window across the UV - NIR spectra.

Click Here to Download Data



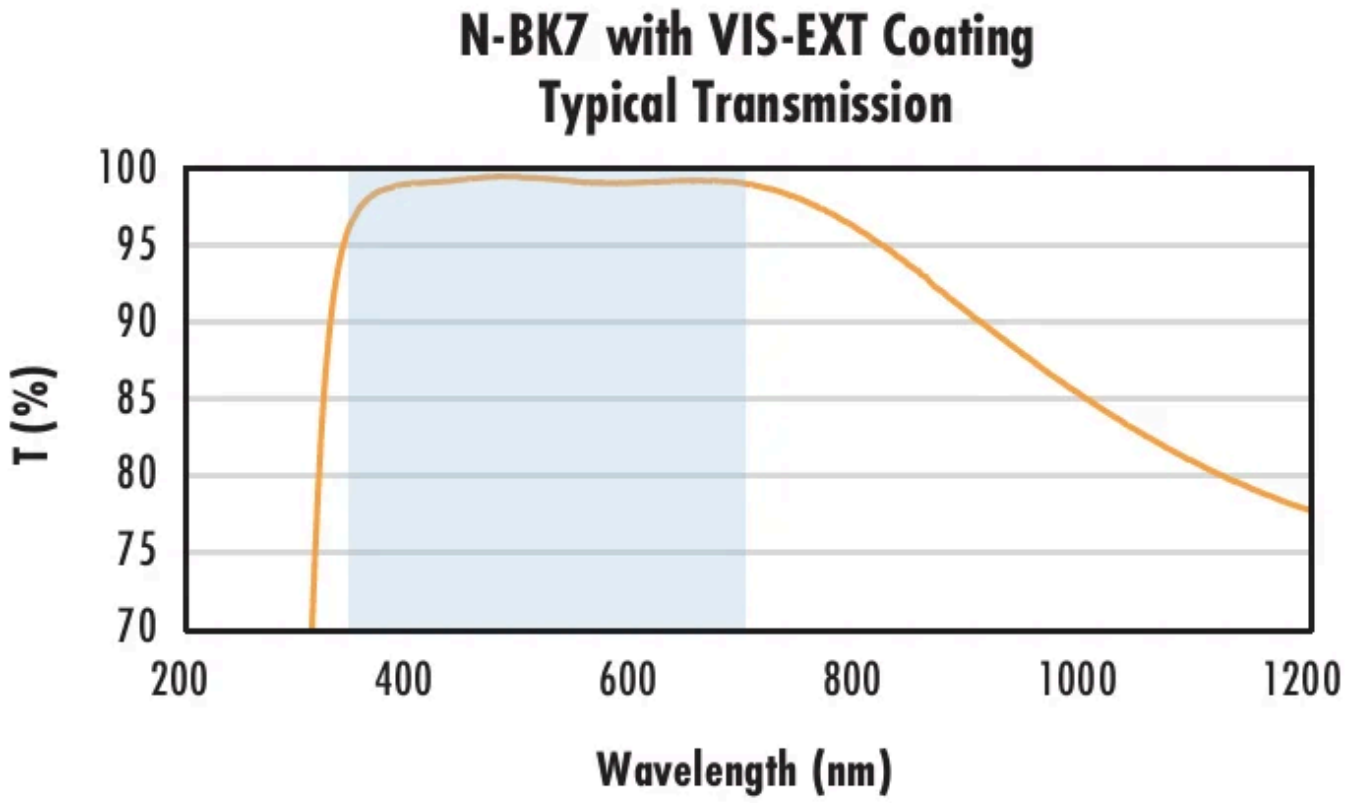
Typical transmission of a 3mm thick N-BK7 window w MgF2 (400-700nm) coating at 0° AOI.

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.

Click Here to Download Data



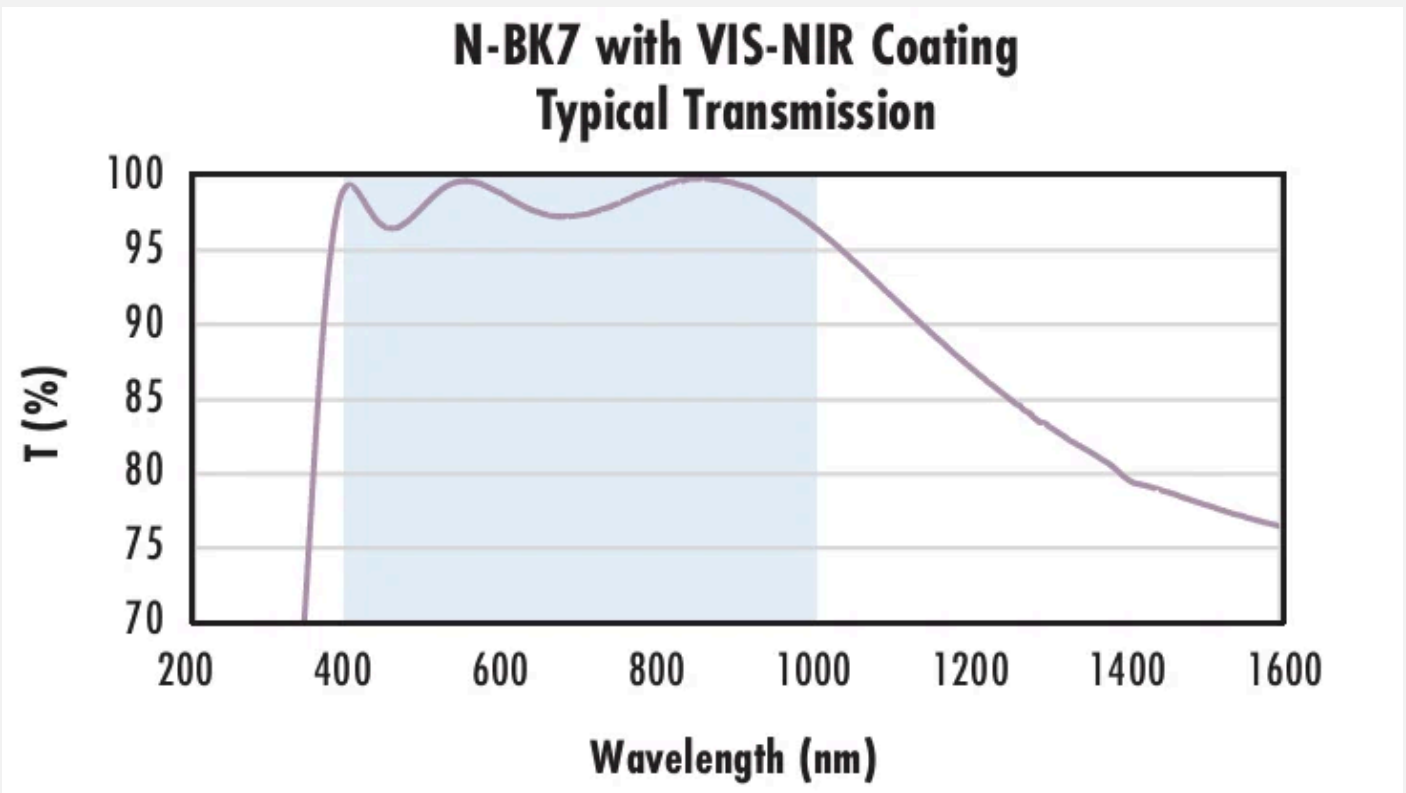
Typical transmission of a 3mm thick N-BK7 window w VIS-EXT (350-700nm) coating at 0° AOI.

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.

Click Here to Download Data



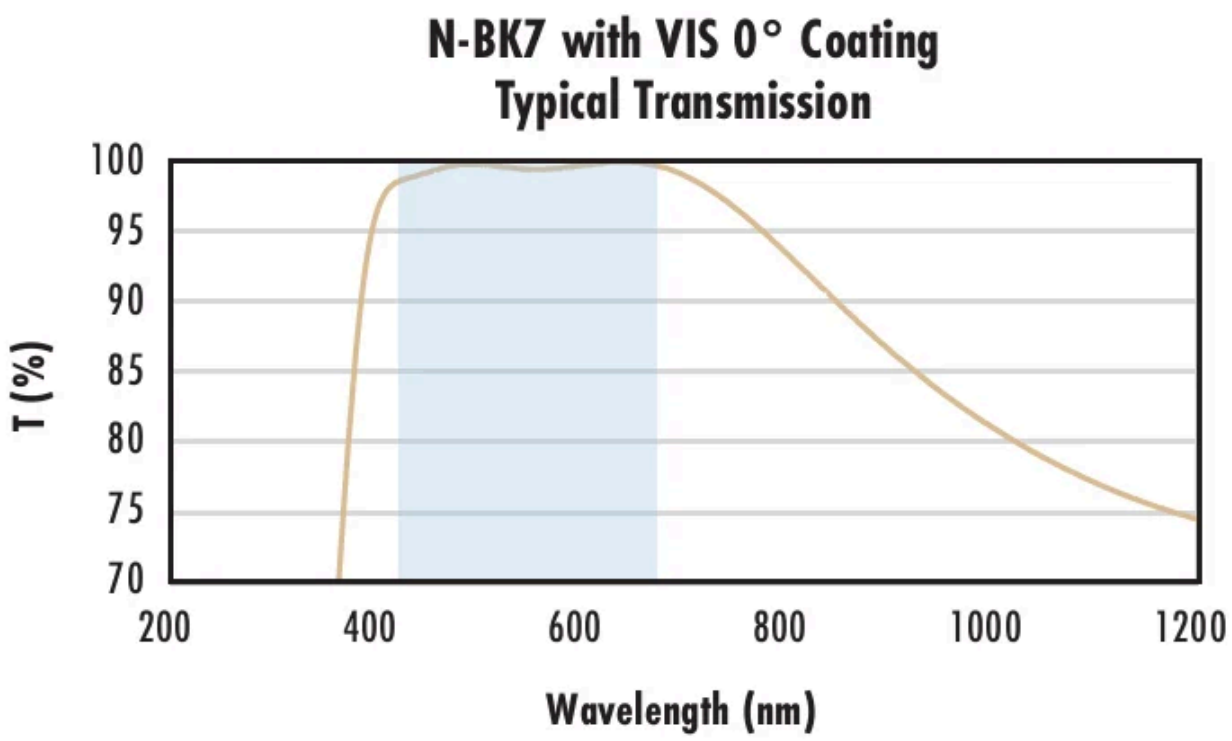
Typical transmission of a 3mm thick N-BK7 window w VIS-NIR (400-1000nm) coating at 0° AOI.

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.

Click Here to Download Data



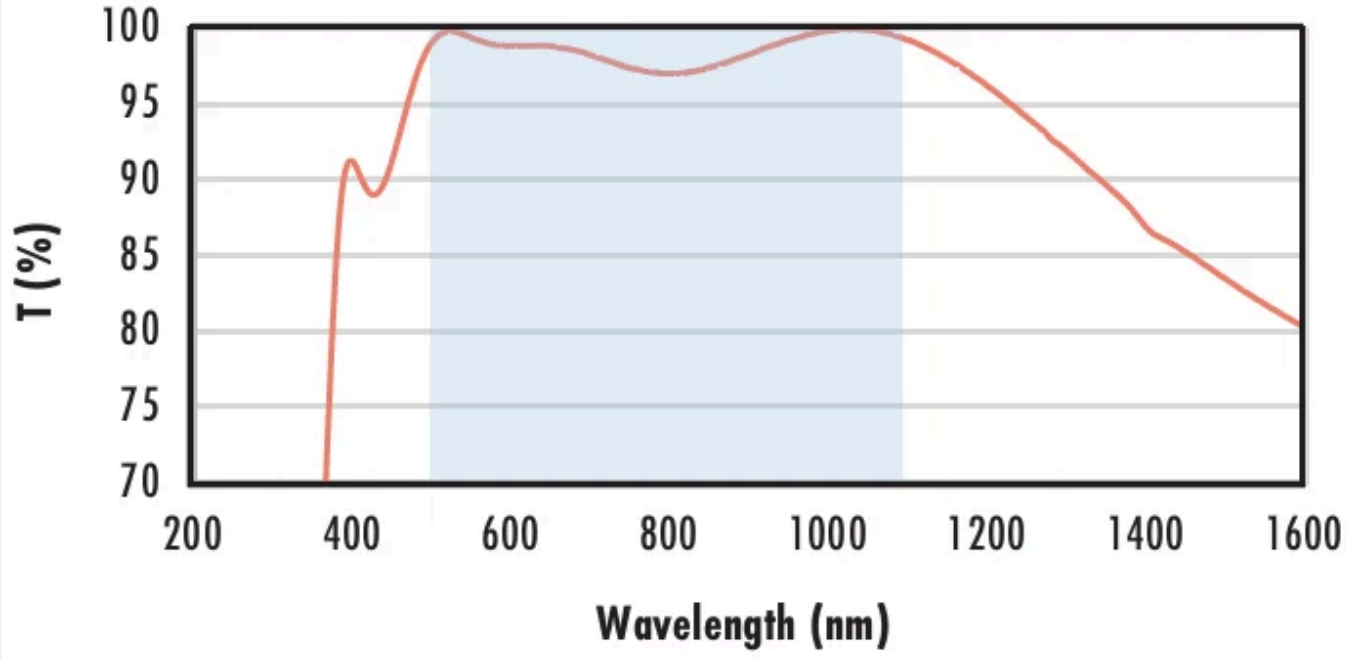
Typical transmission of a 3mm thick N-BK7 window wit 0° (425-675nm) coating at 0° AOI.

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.

Click Here to Download Data



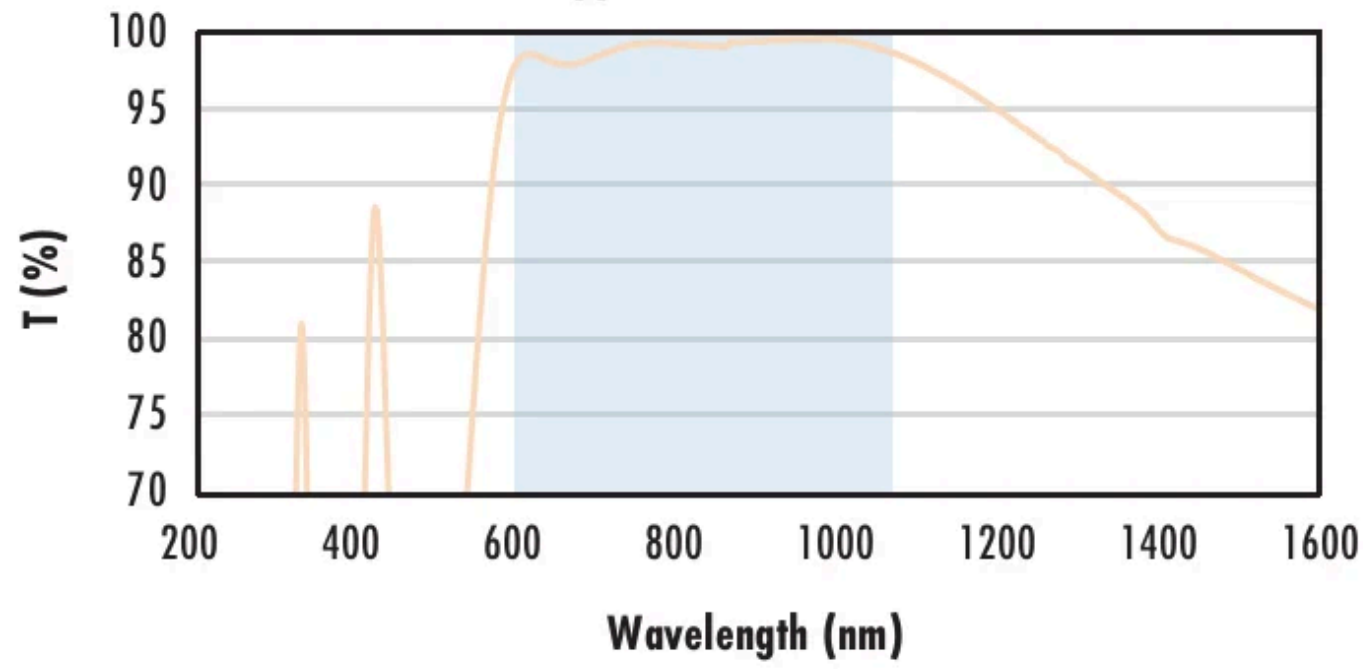
Typical transmission of a 3mm thick N-BK7 window w YAG-BBAR (500-1100nm) coating at 0° AOI.

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.

Click Here to Download Data



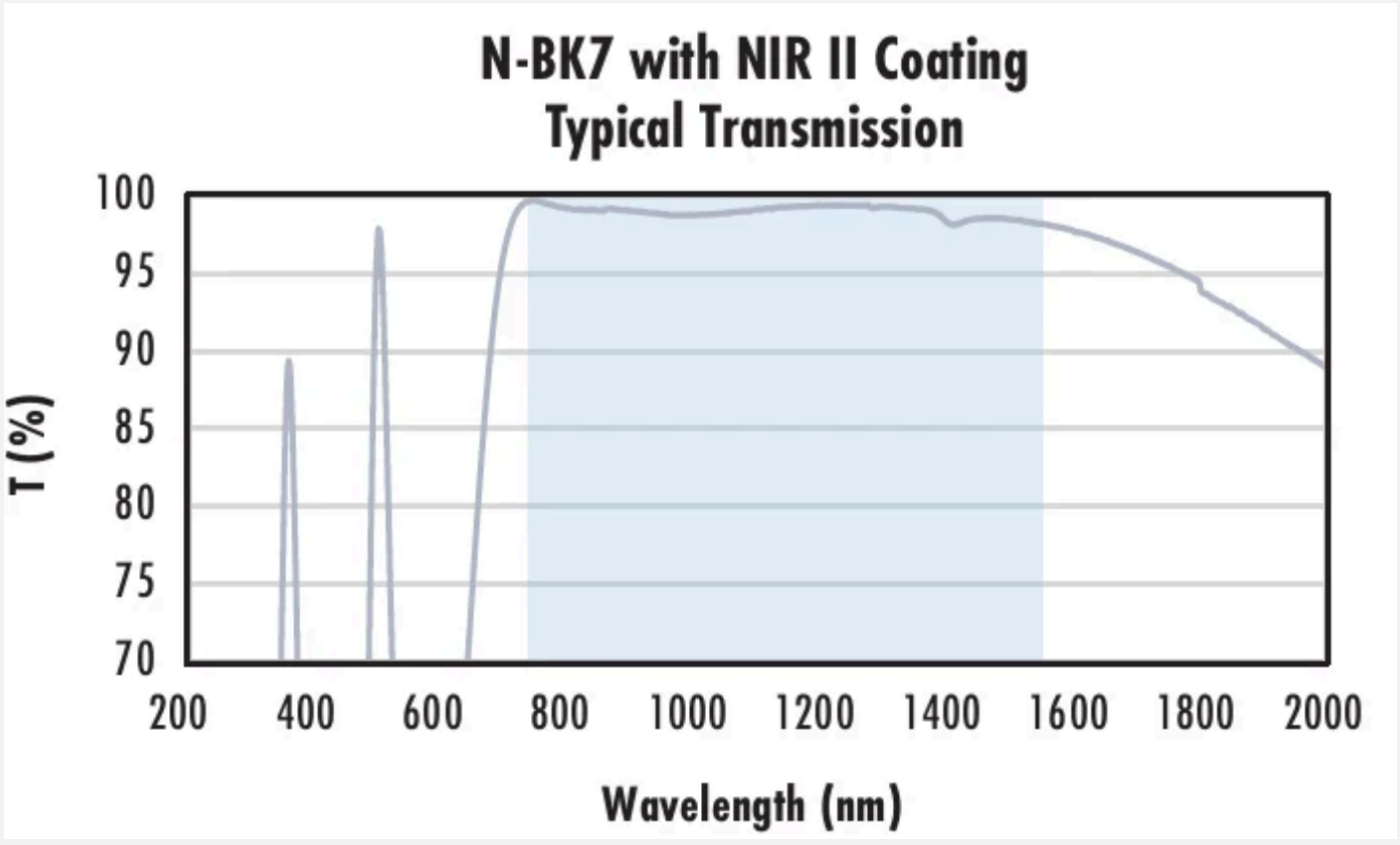
Typical transmission of a 3mm thick N-BK7 window witl I (600 - 1050nm) coating at 0° AOI.

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.

Click Here to Download Data



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.

Click Here to Download Data

Related Products

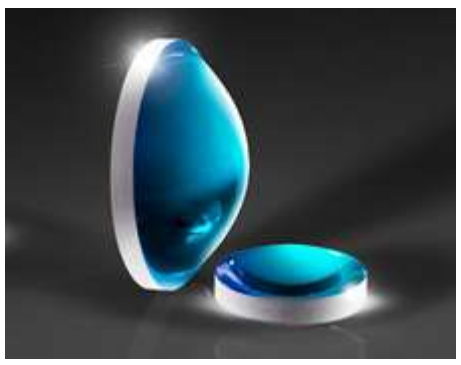
UV Fused Silica Double-Convex (DCX) Lenses

VIS-EXT Coated Plano-Convex (PCX) Lenses

Precision Aspheric Lenses

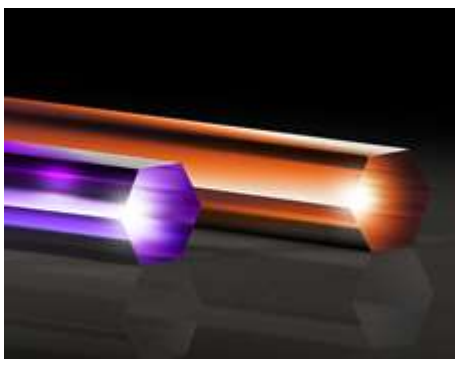
Double-Convex (DCX) Lenses

Frequently Purchased Together



#35-044 - 13mm Dia. x 7.7mm FL, MgF_2 Molded Aspheric Condenser Lens
₹4,818
Qty

#64-919 - 10mm Aperture, 75mm Length, Light Pipe Homogenizing Rod Mount
₹14,226
Qty



#65-838 - 10mm Aperture x 75mm L High NA, Fused Silica Light Pipe
₹31,478
Qty

#88-712 - 20.0mm Dia. x 35.0mm FL, VIS-EXT Coated Plano-Convex Lens
₹5,348
Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	40.0mm Optic Dia., Optic Mount	Fixed		#64-566	₹3,305 Request Quote	10 In Stock 1

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	40mm Diameter, T-Mount Thin Optic Mount	Fixed		#57-976	₹7,264 Request Quote	5 In Stock 1

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

Resources

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

View More

;