

TECHSPEC® 30mm Dia. x 75mm FL Uncoated, Double-Convex Lens



Stock #45-165 **13 In Stock** [Other Coating Options](#)

1 **£36^{.80}**

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Volume Pricing	
Qty 1-9	£36.80 each
Qty 10-24	£33.20 each
Qty 25-99	£29.40 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
- [Download All](#)

General

Type: Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):	30.00 +0.0/-0.025	Centering (arcmin):	<1
Bevel:	Protective as needed	Center Thickness CT (mm):	4.96
Center Thickness Tolerance (mm):	±0.10	Edge Thickness ET (mm):	2.00
Clear Aperture CA (mm):	29.00		

Optical Properties

Back Focal Length BFL (mm):	73.35	Effective Focal Length EFL (mm):	75.00
Coating:	Uncoated	Substrate: ⓘ	N-BK7
Surface Quality:	40-20	Power (P-V) @ 632.8nm:	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4	Radius R₁=-R₂ (mm):	76.67
f/#:	2.5	Focal Length Specification Wavelength (nm):	587.6

Focal Length Tolerance (%) : ±1	Numerical Aperture NA : 0.20
Wavelength Range (nm) : 350 - 2200	

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](#).

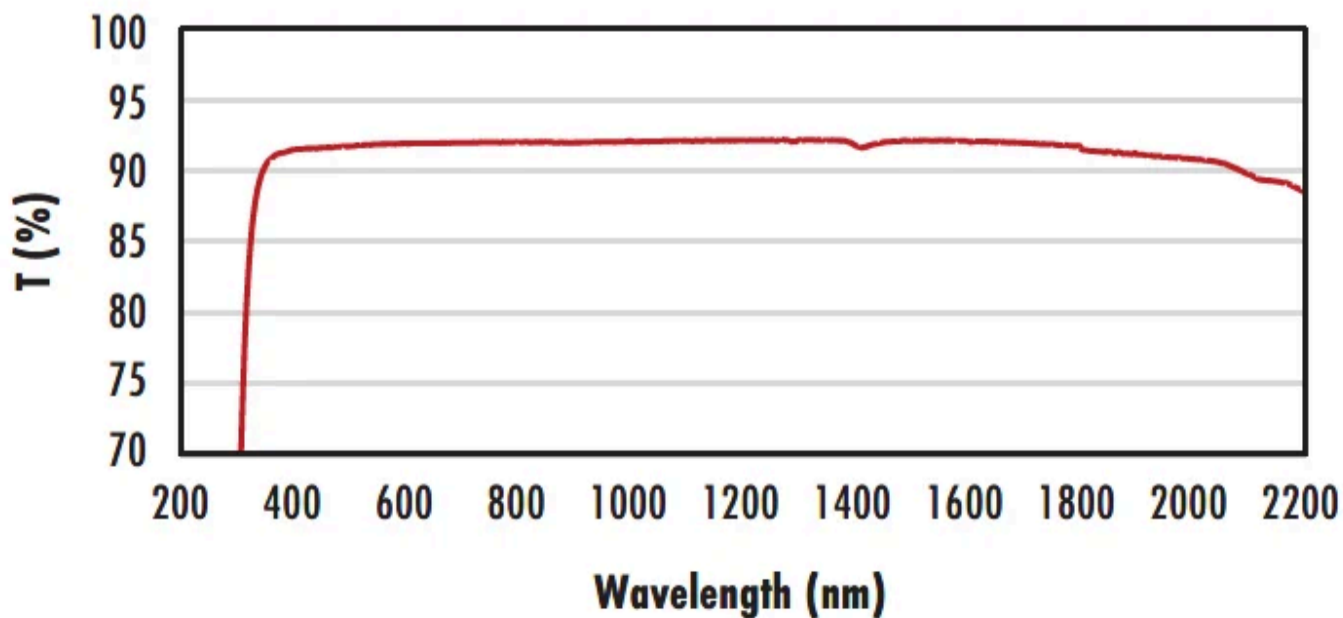
Product Details

- Ideal for Imaging Applications
- Minimize Aberrations Including Spherical and Coma
- **UV Fused Silica DCX Lenses** Available
- Anti-Reflection Coating Options: **MgF₂**, **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

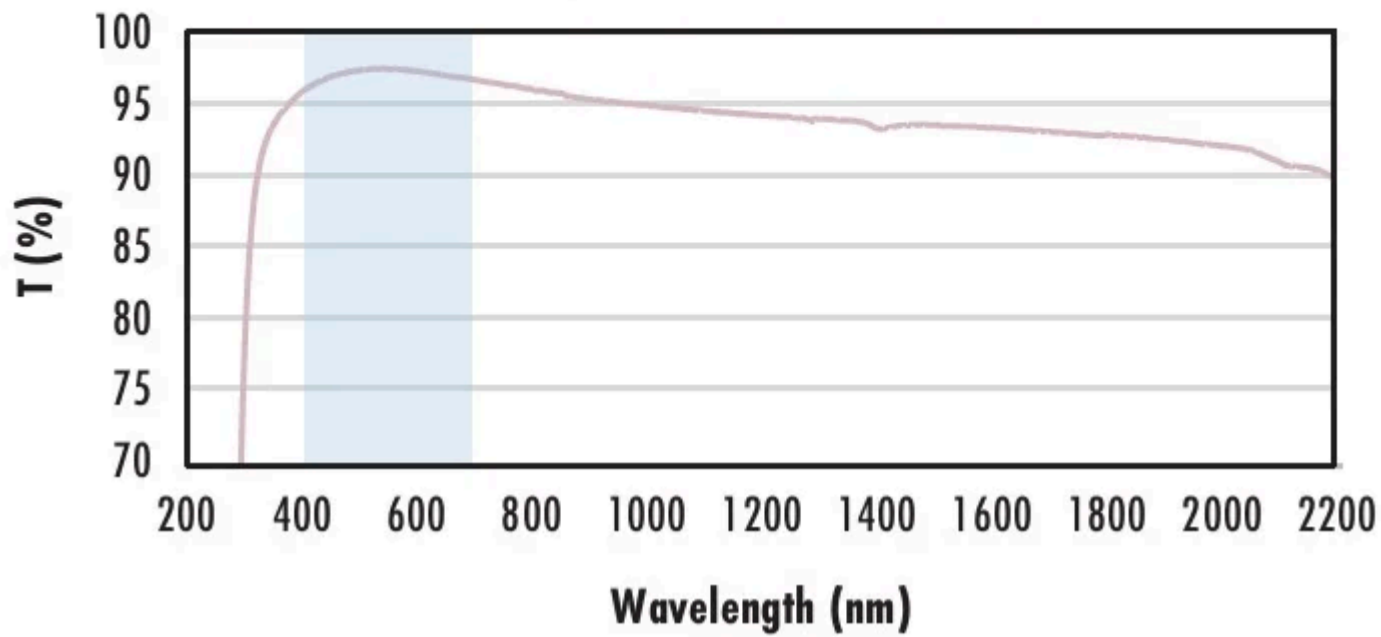
Uncoated N-BK7 Typical Transmission



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

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N-BK7 with MgF₂ Coating Typical Transmission



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

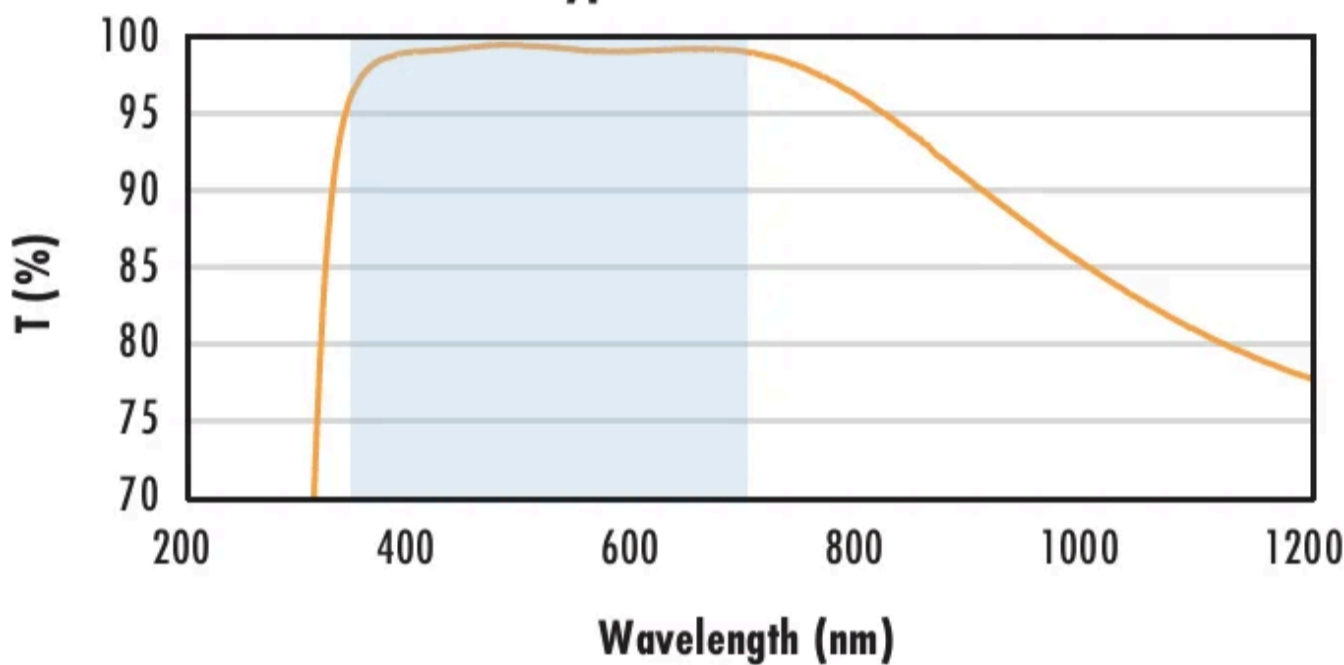
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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N-BK7 with VIS-EXT Coating Typical Transmission



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

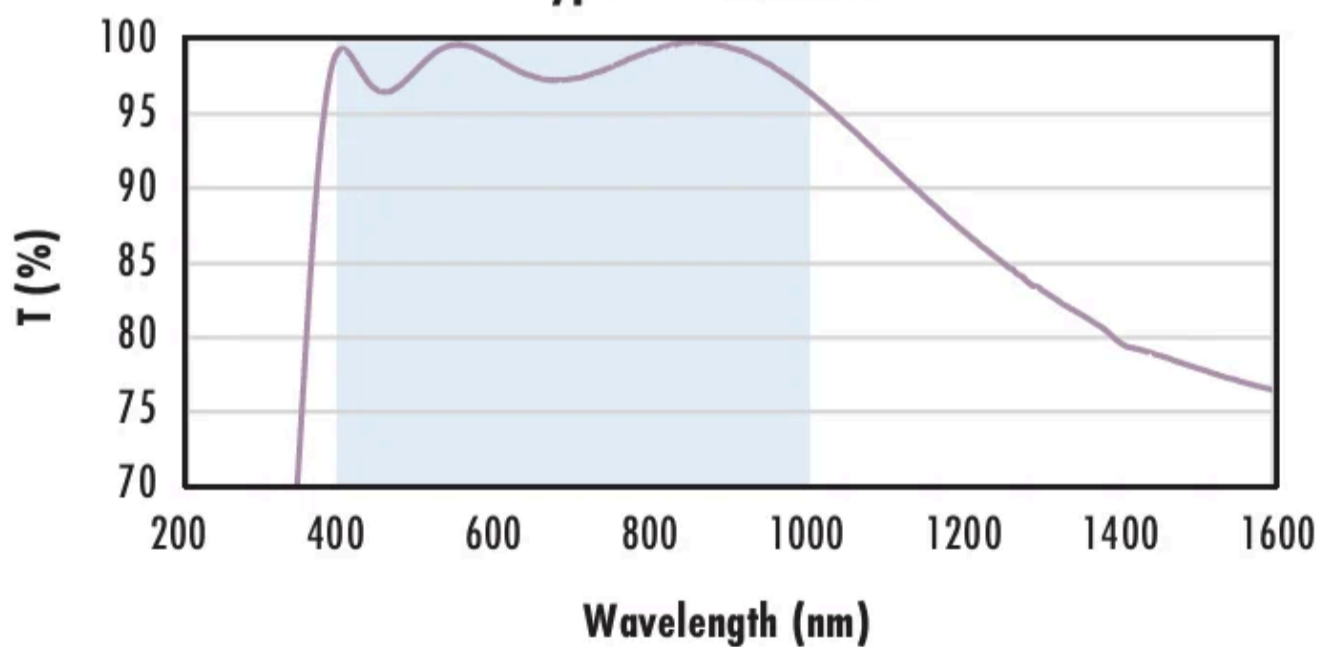
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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N-BK7 with VIS-NIR Coating Typical Transmission



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

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

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

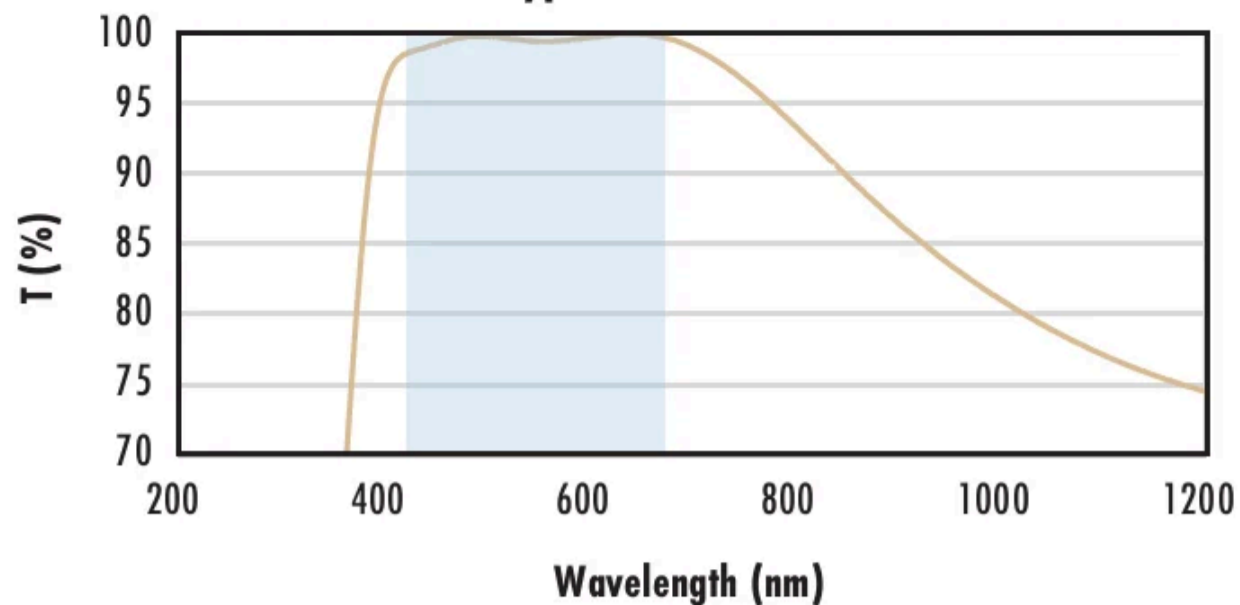
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

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

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N-BK7 with VIS 0° Coating Typical Transmission



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

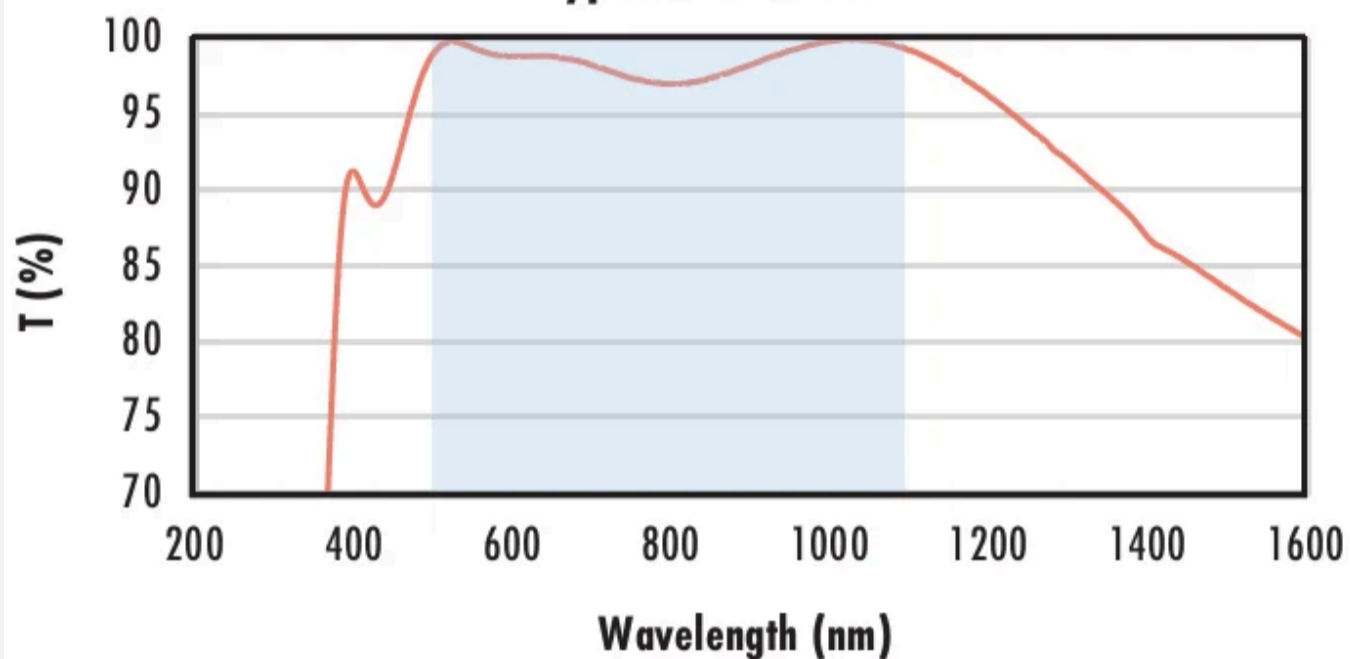
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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N-BK7 with YAG-BBAR Coating Typical Transmission



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

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

$$R_{abs} \leq 0.25\% @ 532\text{nm}$$

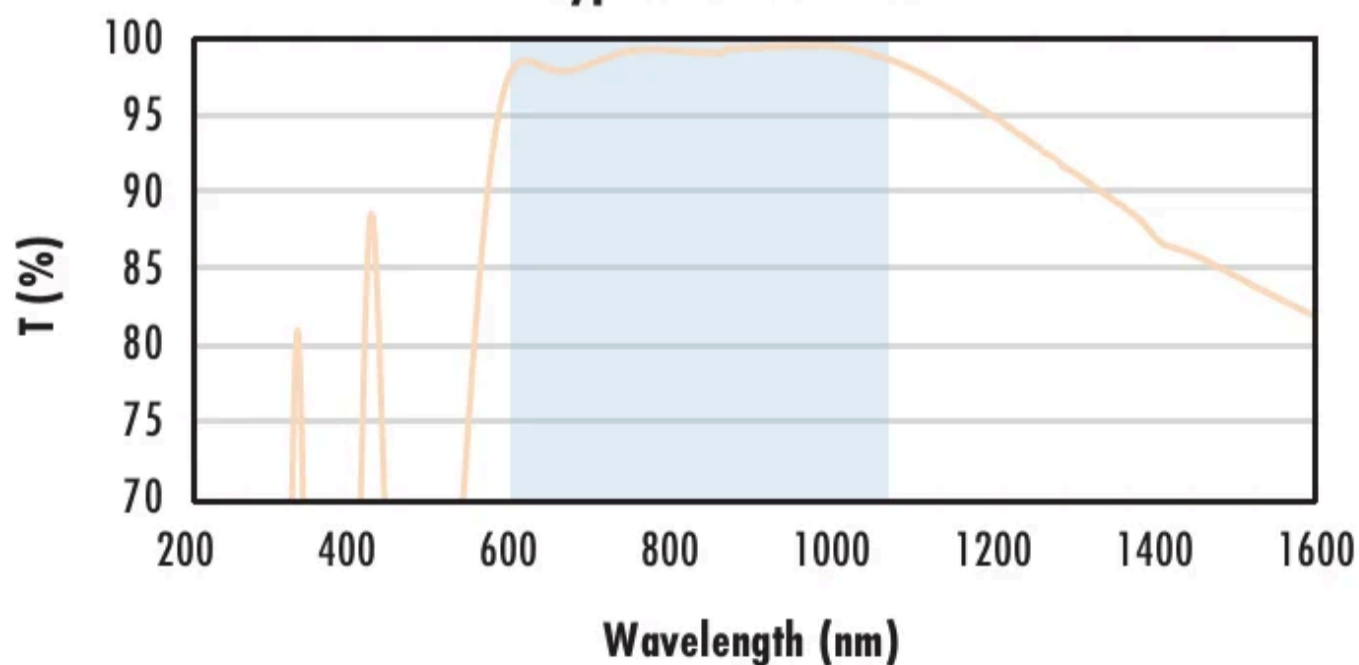
$$R_{abs} \leq 0.25\% @ 1064\text{nm}$$

$$R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}$$

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

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N-BK7 with NIR I Coating Typical Transmission



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 wavelength range, with the following specification:

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

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

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N-BK7 with NIR II Coating Typical Transmission



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

The blue shaded region indicates the coating design wavelength 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

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

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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



#32-477 - 25.0mm Dia. x 50.0mm FL Uncoated, Plano-Convex Lens
£26.20

Qty



#32-479 - 25.0mm Dia. x 75.0mm FL Uncoated, Plano-Convex Lens
£26.20

Qty



#32-483 - 30.0mm Dia. x 50.0mm FL Uncoated, Plano-Convex Lens
£33.60

Qty



#32-626 - 25mm Dia. x 75mm FL Uncoated, Double-Convex Lens
£28.60

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	30.0mm Optic Dia., Optic Mount	Fixed		#64-563	£26.20 Request Quote	11 In Stock <input type="text" value="1"/> <input type="button" value="Add to Cart"/>
MORE+	30.0mm Optic Dia., Optic Mount	Fixed		#64-564	£26.20 Request Quote	CONTACT US <input type="text" value="1"/> <input type="button" value="Add to Cart"/>

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APPLICATION NOTE

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