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TECHSPEC[®] 20mm Dia. x 60mm FL, VIS-NIR Coated, Double-Convex Lens



Stock #63-681 2 In Stock

☐ Other Coating Options

-

1

+

₹3,834

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Qty 1-9	₹3,834 each
Qty 10-24	₹3,445 each
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General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

20.00 +0.0/-0.025

<1	Centering (arcmin):
	Bevel:
Protective as needed	
	Center Thickness CT (mm):
4.00	
	Center Thickness Tolerance (mm):
±0.10	
	Edge Thickness ET (mm):
2.36	

	Clear Aperture CA (mm):
19.00	

Optical Properties

	Back Focal Length BFL (mm):
58.67	
	Effective Focal Length EFL (mm):
60.00	

	Coating:
VIS-NIR (400-1000nm)	
	Coating Specification:
R _{abs} ≤0.25% @ 880nm R _{avg} ≤1.25% @ 400 - 870 nm R _{avg} ≤1.25% @ 890 - 1000nm	

	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):
61.33	
	f/#:
3.00	

	Focal Length Specification Wavelength (nm):
587.6	
	Focal Length Tolerance (%):
±1	

	Numerical Aperture NA:
0.17	
	Wavelength Range (nm):
400 - 1000	

	Damage Threshold, By Design: ☐
5 J/cm ² @ 532nm, 10ns	

Regulatory Compliance

	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	

	Reach 235:
Compliant	

	Country of Origin:
Japan	
	Imported By:
Edmund Optics India Private Limited	

Product Details

- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
- Mnimize Aberrations Including Spherical and Coma
- UV Fused Silica DCX Lenses Available
- Other Coating Options Available: Uncoated, MgF₂, VIS 0°, NIR I, NIR II, VIS-EXT, and YAG-BBAR

TECHSPEC® VIS-NIR 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-NIR Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information



N-BK7

Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-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 at 0° AOI.

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

$R_{avg} \leq 1.75\%$ @ 400 - 700nm (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 at 0° AOI.

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

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

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 at 0° AOI.

The blue shaded region indicates the coating design wavelength 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 for reference only.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Custom

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

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Compatible Mounts
