

TECHSPEC[®] 10mm Dia. x 50mm FL, VIS 0° Coated, Double-Convex Lens



Stock **#63-605** 4 In Stock

☐ [Other Coating Options](#)

-

1

+

£37^{.20}

ADD TO CART

Volume Pricing	
Qty 1-9	£37.20 each
Qty 10-24	£33.40 each
Qty 25-99	£29.80 each
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Double-Convex Lens

Type:

Physical & Mechanical Properties

10.00 +0.0/-0.025	Diameter (mm):
<1	Centering (arcmin):
Protective as needed	Bevel:
2.50	Center Thickness CT (mm):
±0.05	Center Thickness Tolerance (mm):
2.01	Edge Thickness ET (mm):
9	Clear Aperture CA (mm):
Optical Properties	
49.17	Back Focal Length BFL (mm):
50.00	Effective Focal Length EFL (mm):
VIS 0° (425-675nm)	Coating:
R _{avg} ≤0.4% @ 425 - 675nm	Coating Specification:
N-BK7	Substrate: ☐
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
51.25	Radius R ₁ =R ₂ (mm):
5.00	f/#:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
0.10	Numerical Aperture NA:
425 - 675	Wavelength Range (nm):
5 J/cm ² @ 532nm, 10ns	Damage Threshold, Reference: ☐
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

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

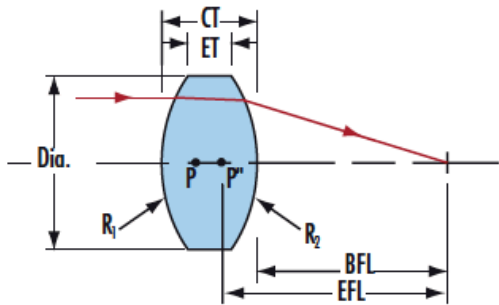
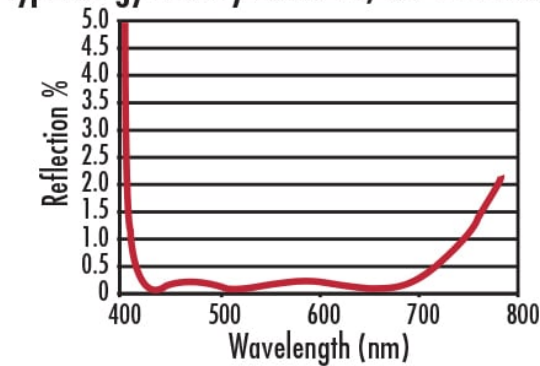
- AR Coated to Provide <0.4% Reflectance per Surface for 425 - 675nm
- Minimize Aberrations Including Spherical and Coma
- [UV Fused Silica DCX Lenses](#) Available
- Other Coating Options Available: [Uncoated](#), [MgF₂](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), [VIS-NIR](#), and [YAG-BBAR](#)

TECHSPEC® VIS 0° 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

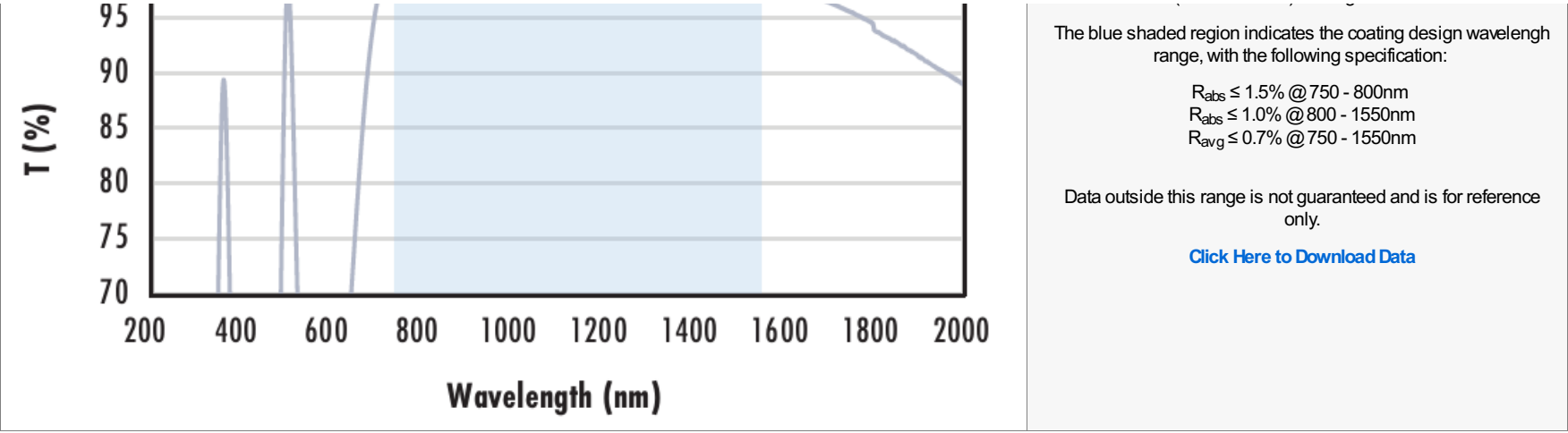
applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or cancelled due to the symmetric lens design. TECHSPEC® VIS 0° Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information

VIS 0° Coating
R_{avg} ≤0.4% @ 425 - 675nm
Typ. Energy Density Limit: 5 J/cm² @ 532nm, 10ns



Uncoated N-BK7 Typical Transmission <table border="1"><caption>Approximate data for Uncoated N-BK7 Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>300</td><td>70</td></tr><tr><td>400</td><td>92</td></tr><tr><td>600</td><td>92</td></tr><tr><td>800</td><td>92</td></tr><tr><td>1000</td><td>92</td></tr><tr><td>1200</td><td>92</td></tr><tr><td>1400</td><td>92</td></tr><tr><td>1600</td><td>92</td></tr><tr><td>1800</td><td>92</td></tr><tr><td>2000</td><td>91</td></tr><tr><td>2200</td><td>89</td></tr></tbody></table>		Wavelength (nm)	Transmission T (%)	300	70	400	92	600	92	800	92	1000	92	1200	92	1400	92	1600	92	1800	92	2000	91	2200	89	Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra. Click Here to Download Data
Wavelength (nm)	Transmission T (%)																									
300	70																									
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N-BK7 with MgF₂ Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with MgF2 Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>300</td><td>70</td></tr><tr><td>400</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>96</td></tr><tr><td>1000</td><td>95</td></tr><tr><td>1200</td><td>94</td></tr><tr><td>1400</td><td>93</td></tr><tr><td>1600</td><td>93</td></tr><tr><td>1800</td><td>93</td></tr><tr><td>2000</td><td>92</td></tr><tr><td>2200</td><td>90</td></tr></tbody></table>		Wavelength (nm)	Transmission T (%)	300	70	400	98	600	98	800	96	1000	95	1200	94	1400	93	1600	93	1800	93	2000	92	2200	90	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: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7) Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Wavelength (nm)	Transmission T (%)																									
300	70																									
400	98																									
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N-BK7 with VIS-EXT Coating Typical Transmission <table border="1"><caption>Approximate data for N-BK7 with VIS-EXT Coating Typical Transmission</caption><thead><tr><th>Wavelength (nm)</th><th>Transmission T (%)</th></tr></thead><tbody><tr><td>300</td><td>70</td></tr><tr><td>350</td><td>98</td></tr><tr><td>600</td><td>98</td></tr><tr><td>800</td><td>98</td></tr><tr><td>1000</td><td>98</td></tr><tr><td>1200</td><td>98</td></tr><tr><td>1400</td><td>98</td></tr><tr><td>1600</td><td>95</td></tr><tr><td>1800</td><td>90</td></tr><tr><td>2000</td><td>85</td></tr><tr><td>2200</td><td>78</td></tr></tbody></table>		Wavelength (nm)	Transmission T (%)	300	70	350	98	600	98	800	98	1000	98	1200	98	1400	98	1600	95	1800	90	2000	85	2200	78	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: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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300	70																									
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Coating Curves

Compatible Mounts