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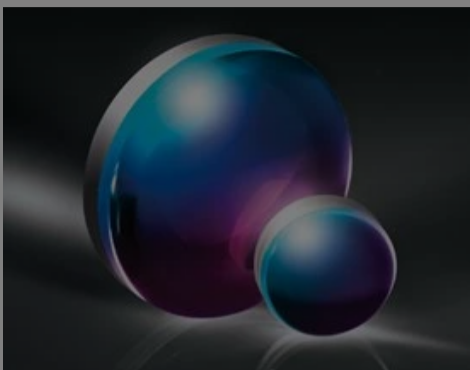
TECHSPEC®

40mm Dia. x 20mm Thick

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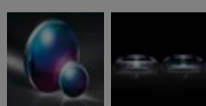
Stock #34-198 **2 In Stock** [Other Coating Options](#)

1

€79^{,50}

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YAG-BBAR Coated Double-Convex (DC) Lenses



Volume Pricing

Qty 1-9 €79,50 each

Qty 10-24 €72,00 each

Qty 25-99 €63,50 each

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Prices shown are exclusive of VAT/local taxes

Product Downloads

- STEP:stp
- Curve:pdf
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Curve (xlsx):xlsx
- Zemax:zar
- Zemax:zmx
- eDrawing:eprt
- Code V:seq
- EO Spec Sheet
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General

Type: Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm): 40.00 +0.0/-0.025

Centering (arcmin): <1

Bevel: Protective as needed

Center Thickness CT (mm): 8.00

Center Thickness Tolerance (mm): ±0.10

Edge Thickness ET (mm): 6.05

Clear Aperture CA (mm): 39.00

Optical Properties

Back Focal Length BFL (mm): 197.35

Effective Focal Length EFL (mm): 200.00

Coating: YAG-BBAR (500-1100nm)

Coating Specification: R_{abs} <0.25% @ 532nm
R_{abs} <0.25% @ 1064nm
R_{avg} <1.0% @ 500 - 1100nm

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):	205.35	f/#:	5.00
Focal Length Specification Wavelength (nm):	587.6	Focal Length Tolerance:	±1
Numerical Aperture NA:	0.10		
Damage Threshold, By Design: ①	5 J/cm ² @ 532nm, 10ns		

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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](#).

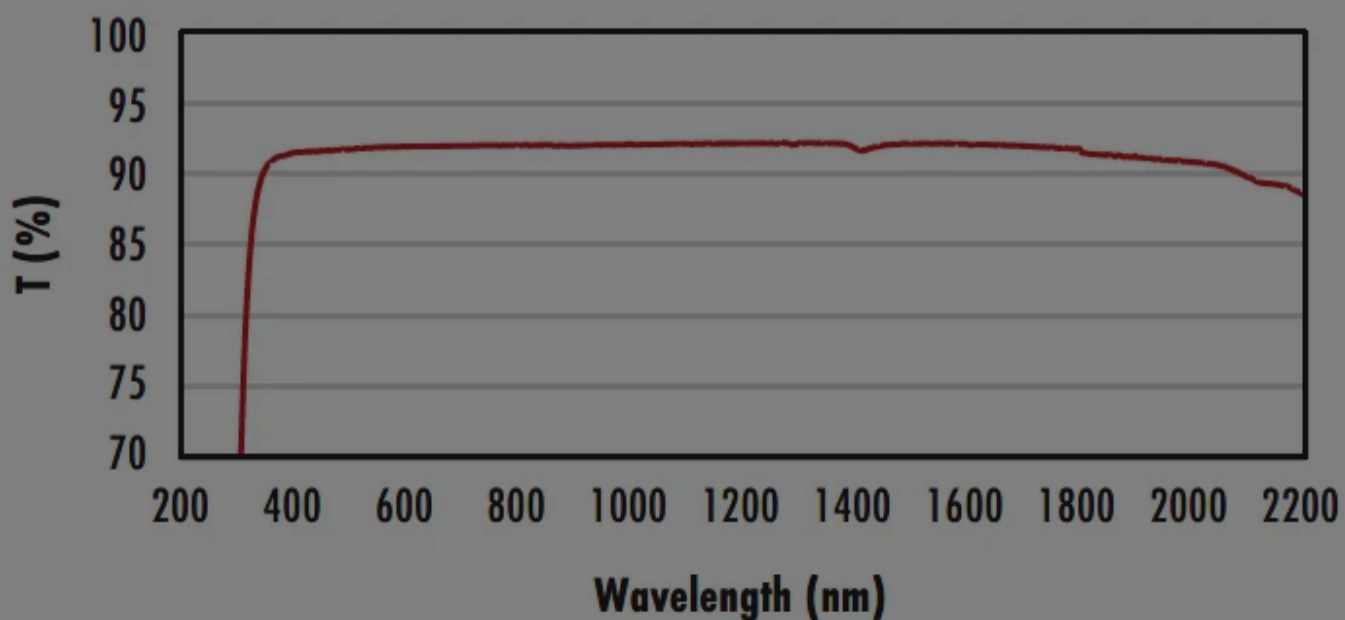
Product Details

- Optimized for R<0.25% @ 532nm and 1064nm
- Minimize 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 VIS-NIR**

TECHSPEC® YAG-BBAR 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 YAG-BBAR Coated Double-Convex 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 N-BK7 window across the UV - NIR spectra.

[Click Here to Download Data](#)

N-BK7 with MgF₂ Coating Typical Transmission



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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:

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

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

[Click Here to Download Data](#)

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:

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

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 at 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-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:

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

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

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N-BK7 with YAG-BBAR Coating Typical Transmission



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:

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

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

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

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

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N-BK7 with NIR I Coating Typical Transmission



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:

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

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

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N-BK7 with NIR II Coating Typical Transmission



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

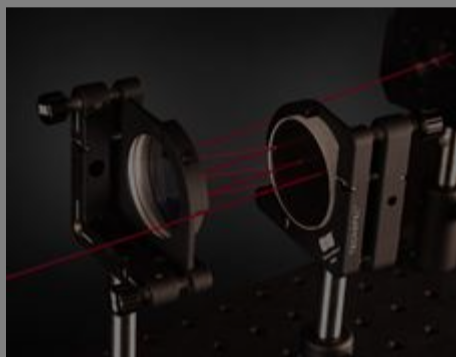
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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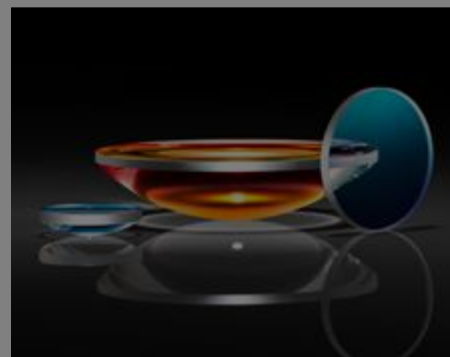
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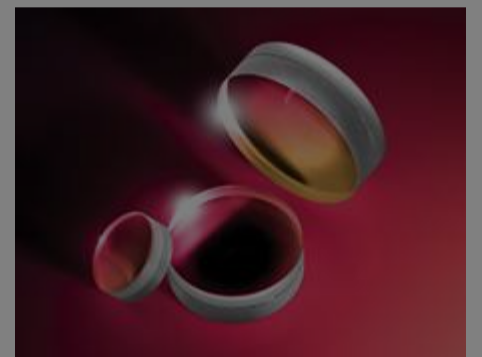
Laser Optics



YAG-BBAR Coated Plano-Convex (PCX) Lenses



UV Fused Silica Plano-Convex (PCX) Lenses - YAG-BBAR Coated



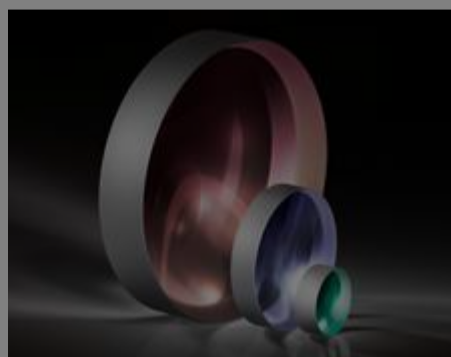
YAG-BBAR Coated Achromatic Lenses

Frequently Purchased Together



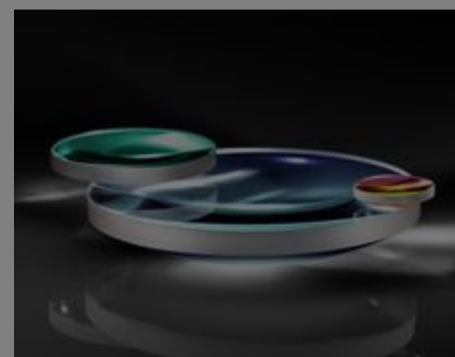
#32-684 - 5.0" x 5.0", 5" Focal Length, Fresnel Lens
€76,00

Qty



#45-925 - 50mm Diameter x -100 FL, VIS-NIR Coated, Plano-Concave Lens
€82,50

Qty







#84-274 - 50.0mm Diameter x 200.0mm FL, 1550nm V-Coat, PCX Lens
€75,50

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	40.0mm Optic Dia., Optic Mount	Fixed		#64-566	€32,75 Request Quote	10 In Stock <input type="text" value="1"/> <input type="button" value="Add to Cart"/>

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	40mm Diameter, Mount Th Optic Mou				€72,00	5 In Stock <input type="text" value="1"/> 
MORE+ 	40mm Diameter, Mount Th Optic Mou					15 In Stock <input type="text" value="1"/> 

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