

TECHSPEC[®] 50.0mm Dia. x -125 FL, YAG-BBAR, Plano-Concave Lens



Stock #21-323 1 In Stock

-

1

+

€82⁵⁰

ADD TO CART

Volume Pricing	
Qty 1-9	€82,50 each
Qty 10-25	€74,00 each
Qty 26-49	€66,00 each
Need More?	Request Quote

 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Plano-Concave Lens

Physical & Mechanical Properties

Diameter (mm):

50.00	
	Bevel:
Protective as needed	
	Center Thickness CT (mm):
5.00 ±0.10	
	Centering (arcmin):
<1	
	Clear Aperture CA (mm):
49.00	
	Edge Thickness ET (mm):
9.87	

Optical Properties	
	Effective Focal Length EFL (mm):
-125.00	
	Substrate: ☐
N-BK7	
	f/#:
2.00	
	Numerical Aperture NA:
0.20	
	Coating:
YAG-BBAR (500-1100nm)	
	Wavelength Range (nm):
500 - 1100	
	Back Focal Length BFL (mm):
-128.30	
	Coating Specification:
R _{abs} <0.25% @ 532nm R _{abs} <0.25% @ 1064nm R _{avg} <1.0% @ 500 - 1100nm	
	Focal Length Specification Wavelength (nm):
587.6	
	Focal Length Tolerance (%):
±1	
	Radius R ₁ (mm):
-64.60	
	Surface Quality:
40-20	
	Damage Threshold, By Design: ☐
5 J/cm² @ 532nm, 10ns	
	Power (P-V) @ 632.8nm:
1.5λ	
	Irregularity (P-V) @ 632.8nm:
λ/4	

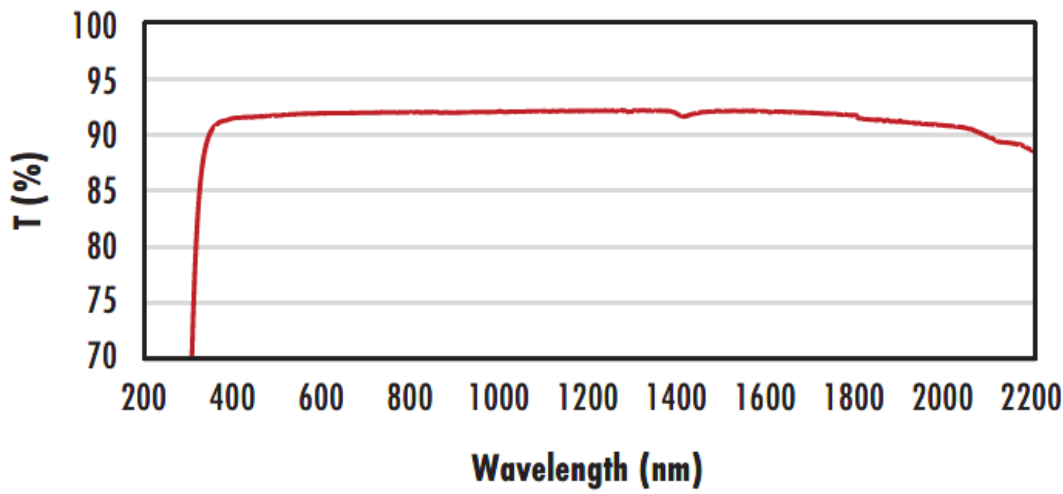
Regulatory Compliance	
	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	
	Reach 235:
Compliant	

Product Details

- Negative Focal Lengths for Beam Expansion or Light Projection Applications
 - Optimized for R<0.25% at both 532nm and 1064nm
 - AR Coated to Provide <1.0% Reflectance per Surface for 500 - 1100nm
 - Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), and [1064nm V-Coat](#)
- TECHSPEC® YAG-BBAR Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC® YAG-BBAR Coated Plano-Concave (PCV) Lenses feature less than 0.25% reflection at common Nd:YAG laser wavelengths of 532nm and 1064nm. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF₂](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), or with [NIR II](#) AR coating options.

Technical Information

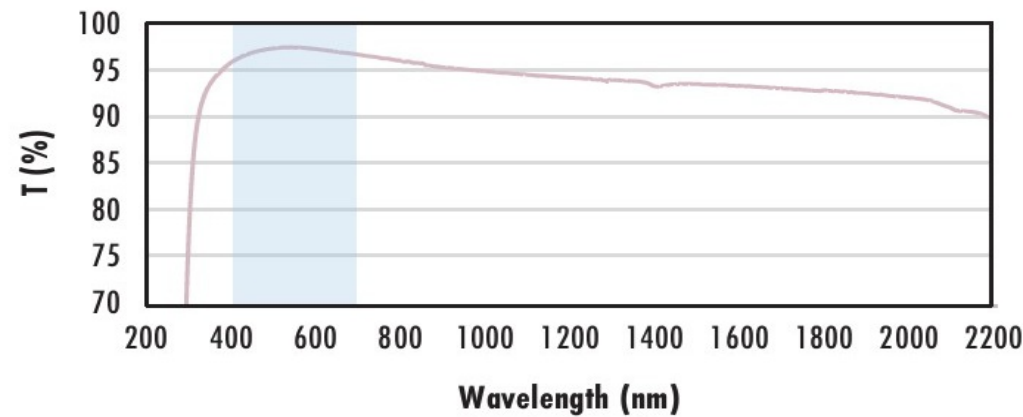
N-BK7	
Uncoated N-BK7 Typical Transmission	



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**



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

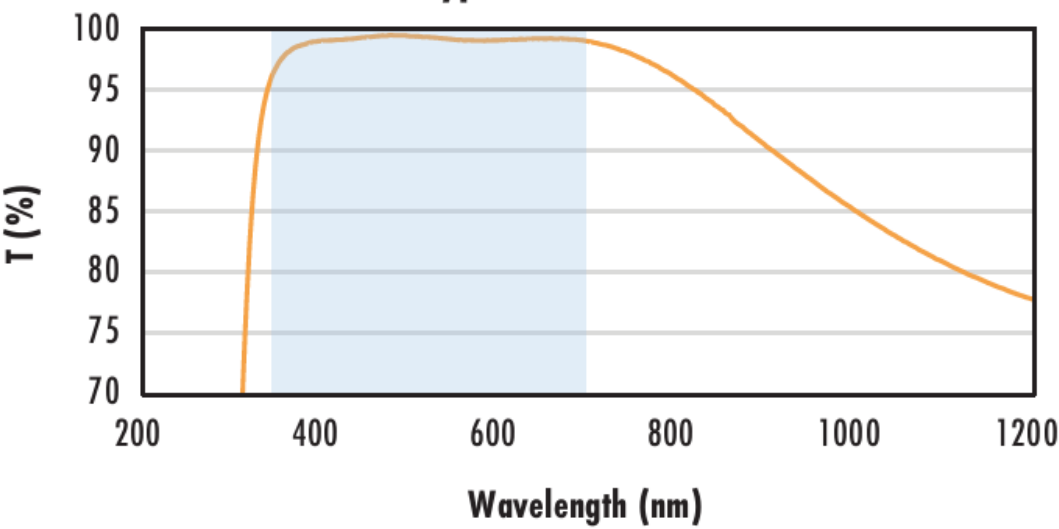
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

**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.

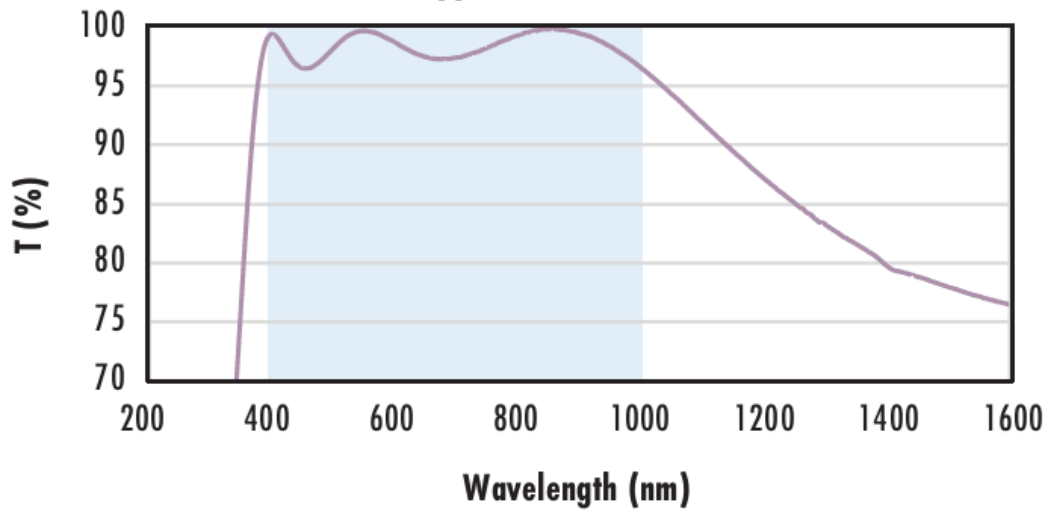
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

**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.

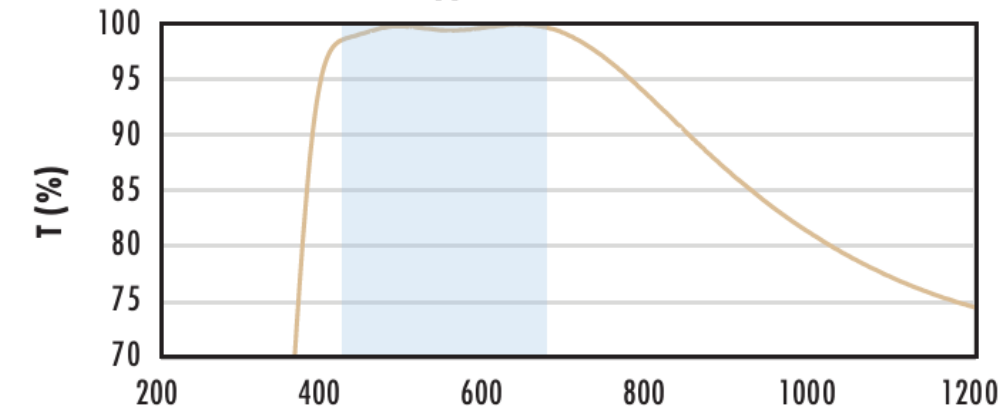
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 880\text{nm}$
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$

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

[Click Here to Download Data](#)

**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:

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

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

[Click Here to Download Data](#)

