

TECHSPEC[®] 75mm Dia. x 175mm FL, MgF₂ Coated, Plano-Convex Lens



Stock **#71-842** 1 In Stock

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-

1

+

£85^{.37}

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Volume Pricing	
Qty 1-9	£85.37 each
Qty 10-24	£77.04 each
Qty 25-49	£68.29 each
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Plano-Convex Lens		Type:
Physical & Mechanical Properties		
Diameter (mm):		75.00 +0.0/-0.025
Centering (arcmin):		<1
Center Thickness CT (mm):		9.58
Edge Thickness ET (mm):		1.44
Clear Aperture CA (mm):		73.5
Bevel:		Protective as needed
Optical Properties		
Effective Focal Length EFL (mm):		175.00
Back Focal Length BFL (mm):		168.68
Coating:		MgF2 (400-700nm)
Coating Specification:		R _{avg} ≤ 1.75% @ 400 - 700nm
Substrate: ☐		N-BK7
Surface Quality:		40-20
Power (P-V) @ 632.8nm:		3λ
Irregularity (P-V) @ 632.8nm:		λ/2
Focal Length Tolerance (%):		±1
Radius R ₁ (mm):		90.44
f/#:		2.33
Numerical Aperture NA:		0.21
Wavelength Range (nm):		400 - 700
Damage Threshold, By Design: ☐		10 J/cm ² @ 532nm, 10ns
Regulatory Compliance		
Certificate of Conformance:		View

PRODUCT DETAILS

- AR Coated to Provide <1.75% Reflectance per Surface for 400 - 700nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)
- Also Available [Pre-Mounted in Engraved C-Mount Housings](#)

TECHSPEC® MgF2 Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® MgF2 Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).

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:

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

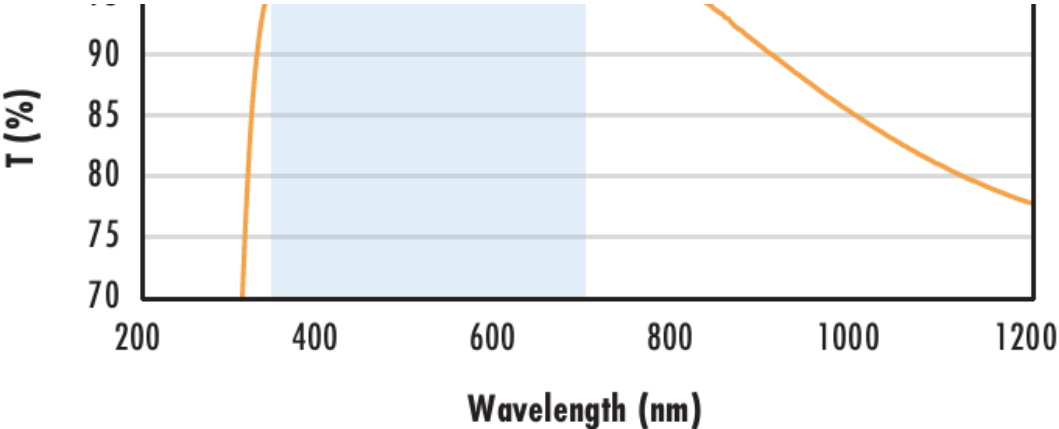
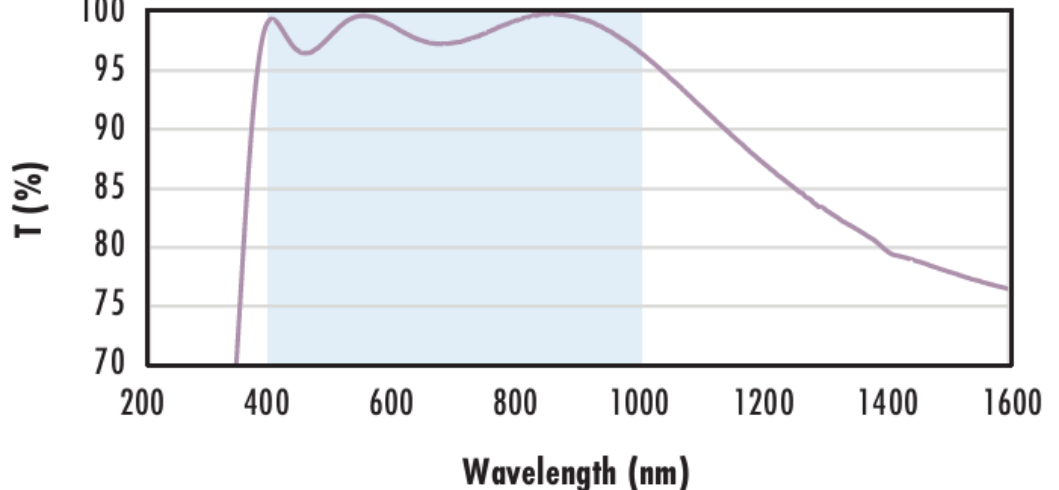
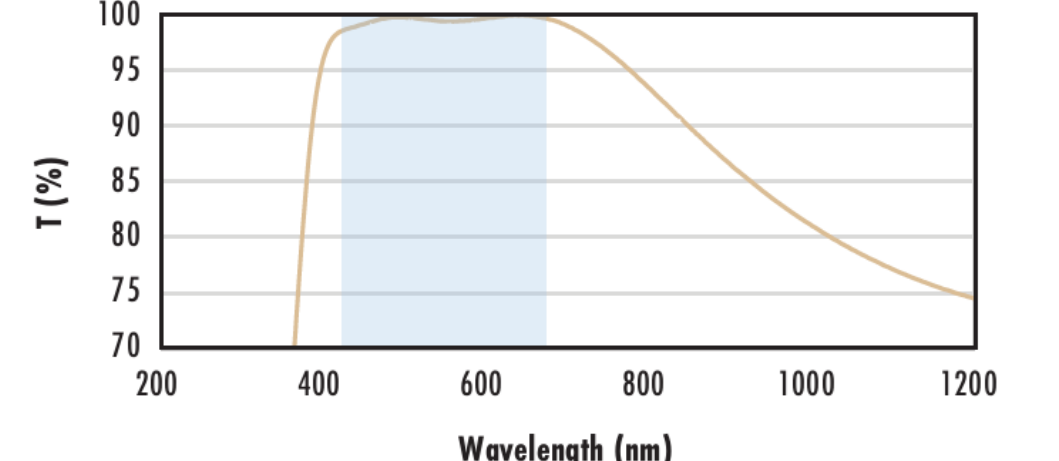
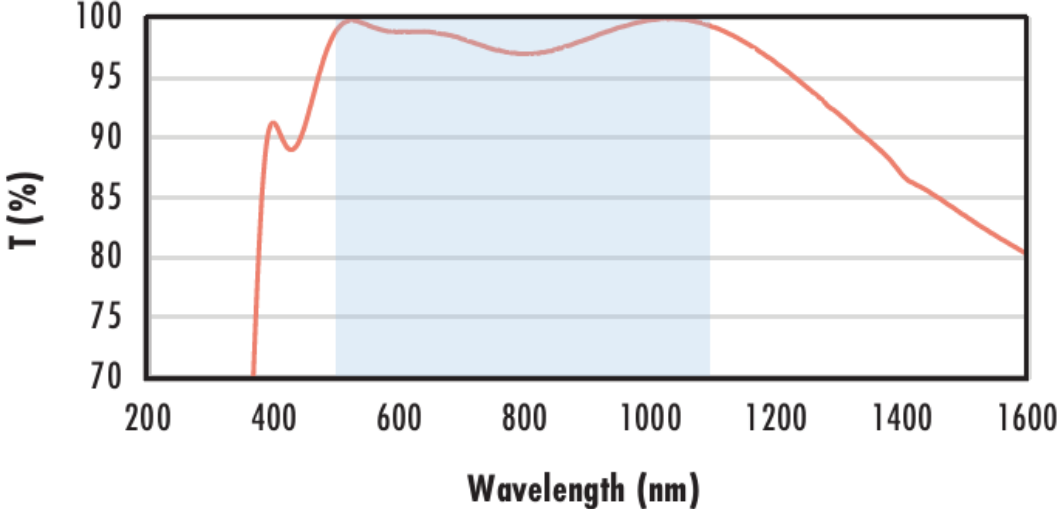
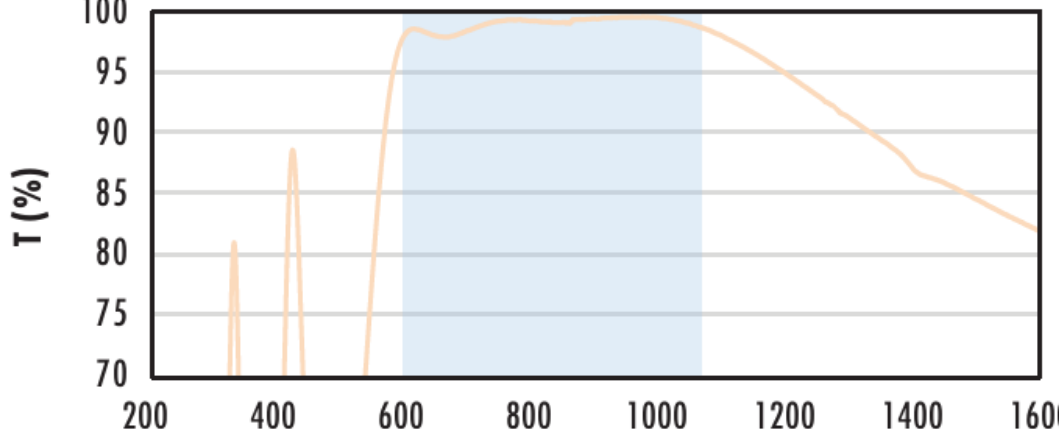
Data outside this range is not guaranteed and is for reference only.

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N-BK7 with VIS-EXT Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT

	Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (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. 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: $R_{abs} \leq 0.25\%$ @ 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. 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 - 675nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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: $R_{abs} \leq 0.25\%$ @ 532nm $R_{abs} \leq 0.25\%$ @ 1064nm $R_{avg} \leq 1.0\%$ @ 500 - 1100nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
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: $R_{avg} \leq 0.5\%$ @ 600 - 1050nm Data outside this range is not guaranteed and is for reference only. Click Here to Download Data

