

TECHSPEC®

50mm Dia. x 200mm FL, NIR II Coated, Double-Convex Lens



Stock #67-676 **1 In Stock** [Other Coating Options](#)

- 1 +

MRP ₹7,567

Price inclusive of all taxes

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Volume Pricing	
Qty 1-9	₹7,567 each
Qty 10-24	₹6,810 each
Qty 25-99	₹6,053 each
Need More?	Request Quote

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	Download All

General

Type: Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm): 50.00 +0.0/-0.025	Centering (arcmin): <1
Center Thickness CT (mm): 5.05	Center Thickness Tolerance (mm): ±0.10
Edge Thickness ET (mm): 2.00	Clear Aperture CA (mm): 49.00

Optical Properties

Back Focal Length BFL (mm): 198.33	Effective Focal Length EFL (mm): 200.00
Coating: NIR II (750-1550nm)	Coating Specification: R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm
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): 205.86	f/#: 4.00
Focal Length Specification	Focal Length Tolerance ±1.00

Wavelength (nm):		(%):	
Numerical Aperture NA:	0.13	Wavelength Range (nm):	750 - 1550
Damage Threshold, Reference: ⓘ	8 J/cm ² @ 1064nm, 10ns		

Regulatory Compliance

RoHS 2015:	Compliant	Certificate of Conformance:	View
Reach 235:	Compliant		
Country of Origin:	Japan	Imported By:	Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91-80-6845 0000

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 <0.7% Reflectance per Surface for 750 - 1550nm
- Minimize Aberrations Including Spherical and Coma
- **UV Fused Silica DCX Lenses** Available
- Other Coating Options Available: **Uncoated, MgF₂, VIS 0°, NIR I, VIS-EXT, VIS-NIR,** and **YAG-BBAR**

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

Technical Information

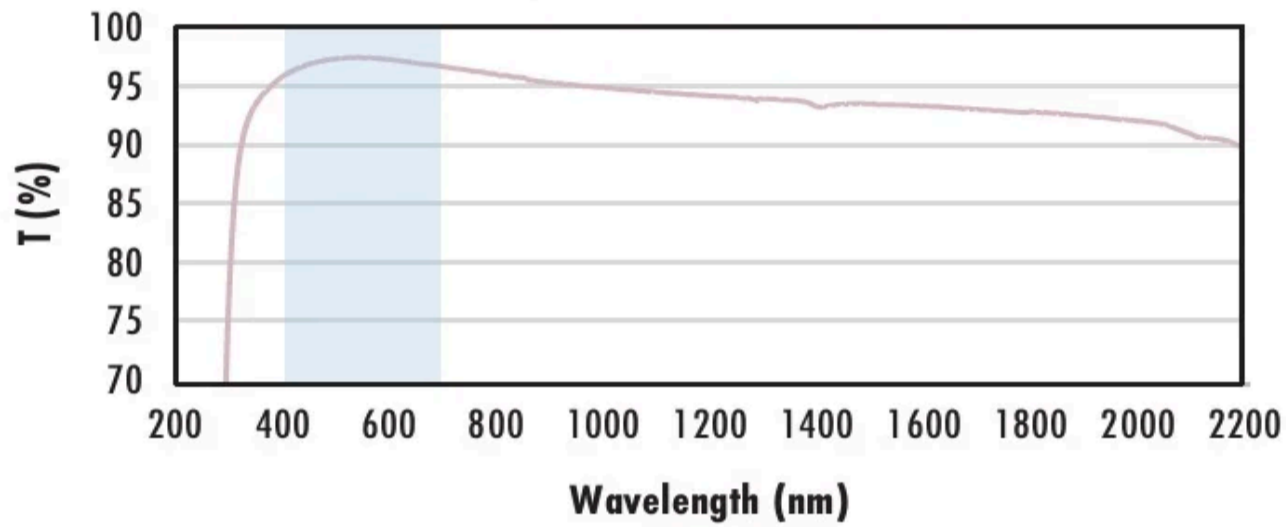
Uncoated N-BK7 Typical Transmission



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



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

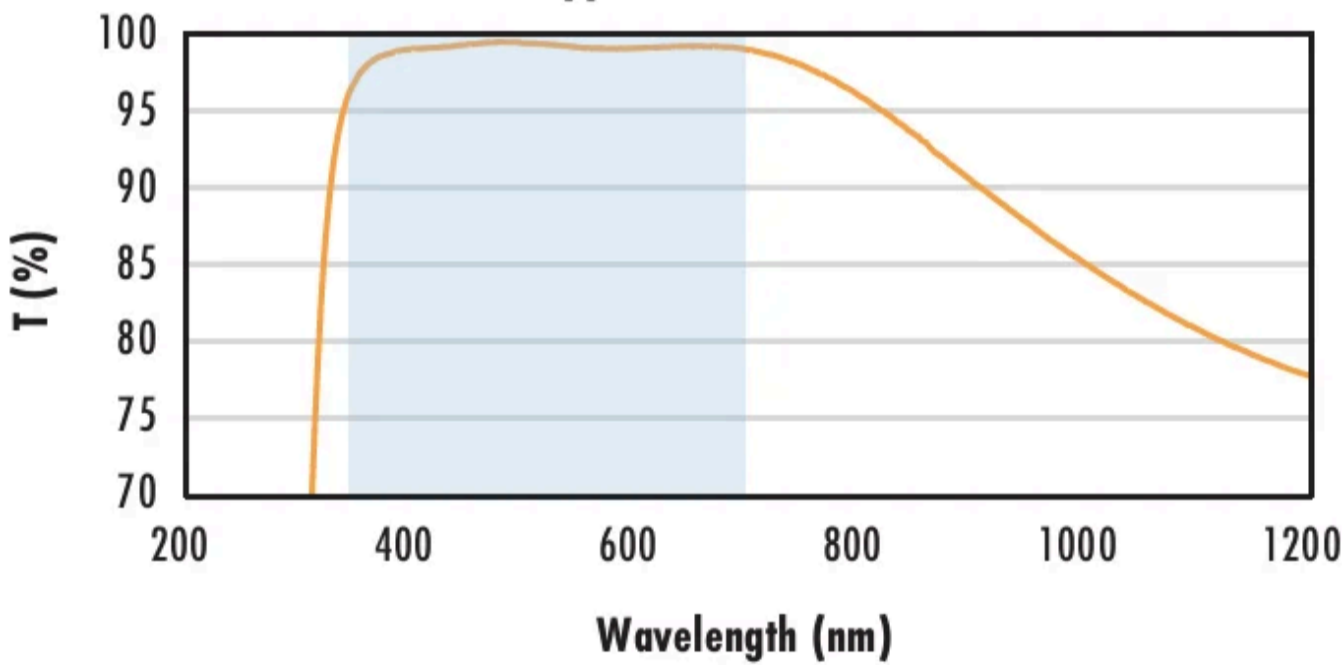
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

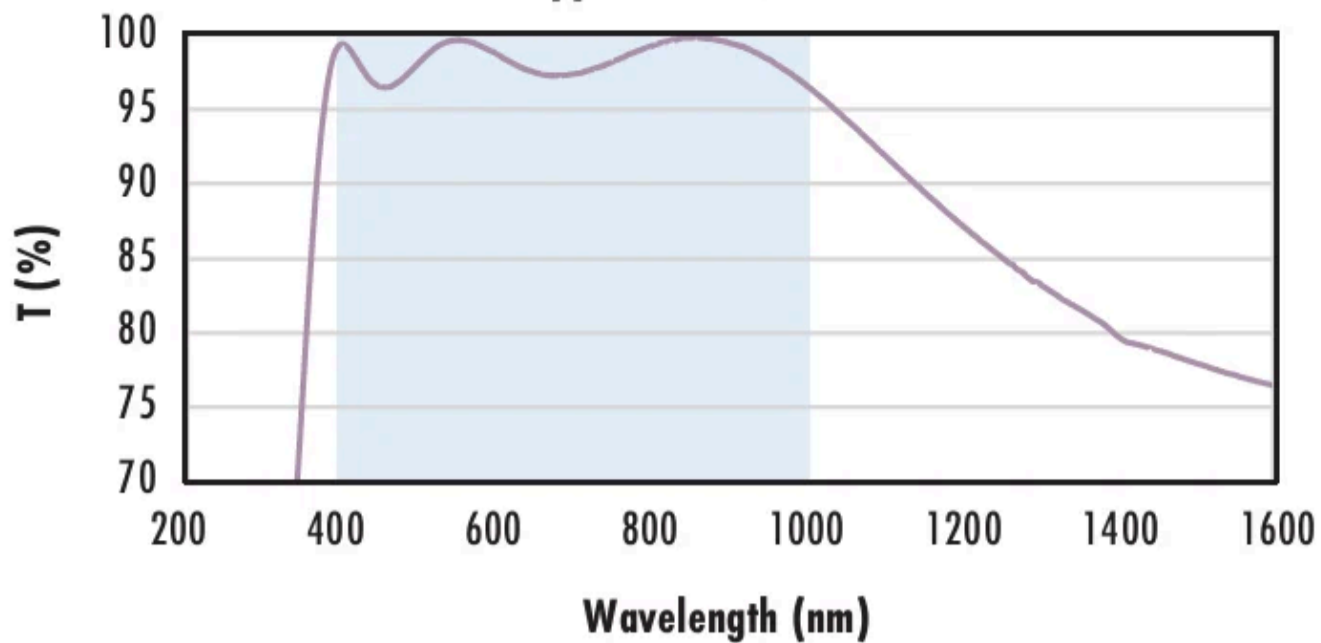
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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.

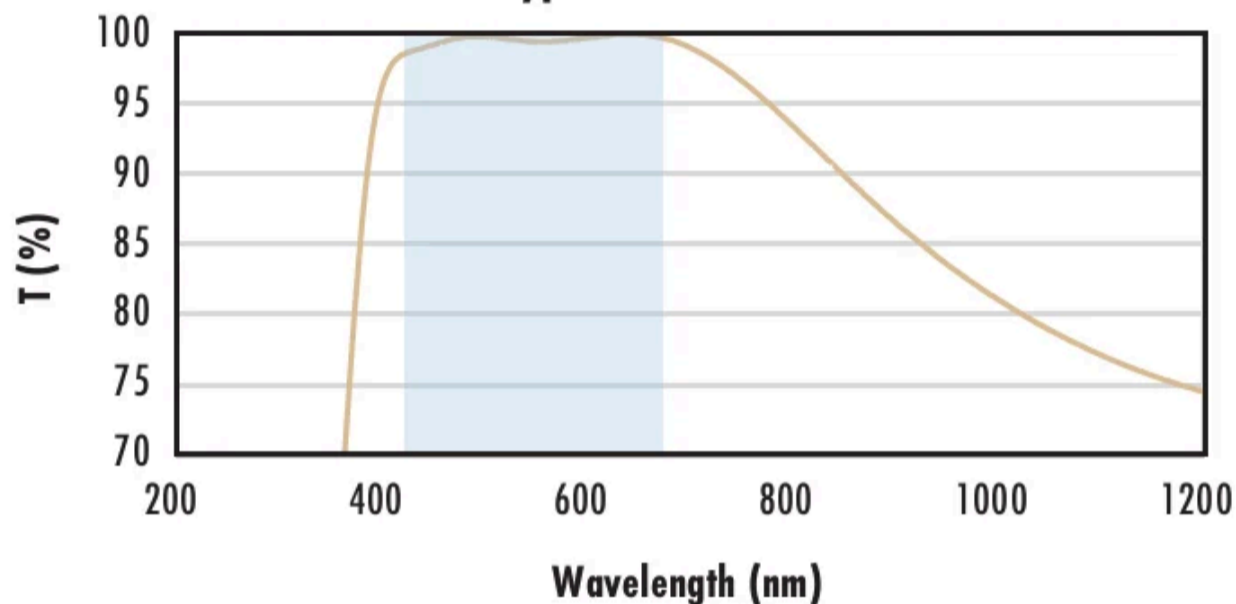
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 0° (425-675nm) coating at 0° AOI.

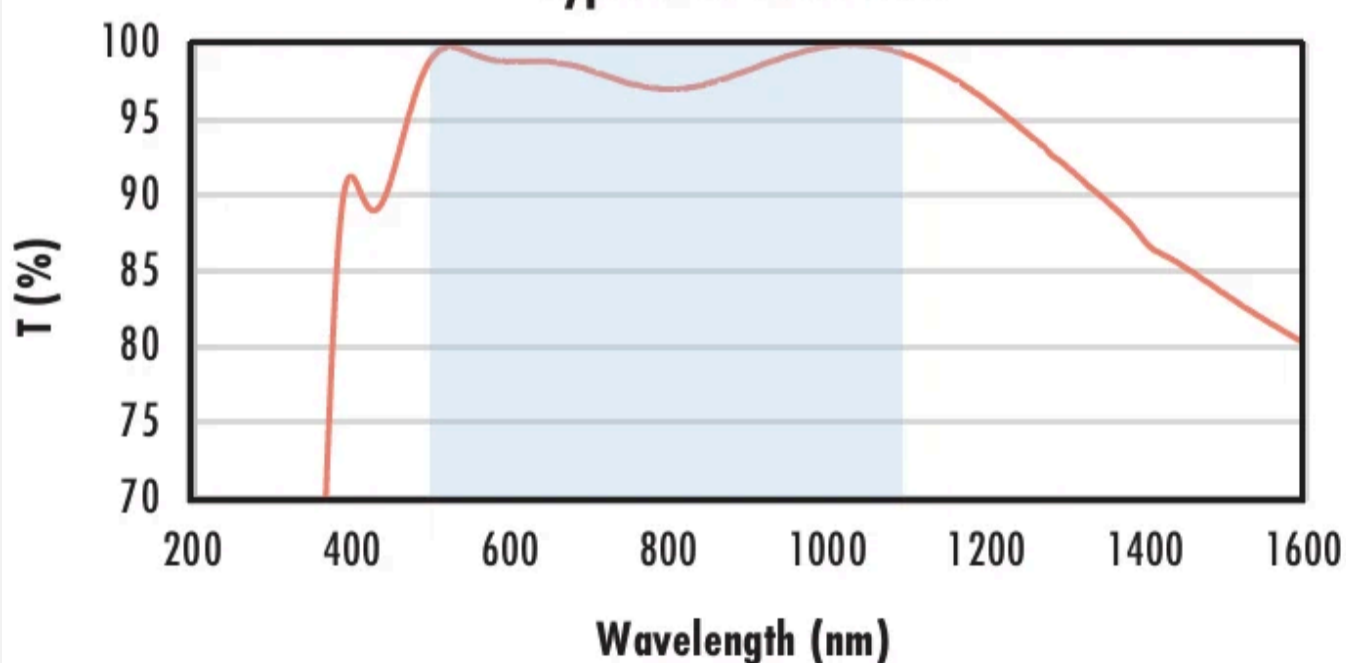
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 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](#)

N-BK7 with NIR II Coating Typical Transmission



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

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

$$R_{abs} \leq 1.5\% @ 750 - 800nm$$

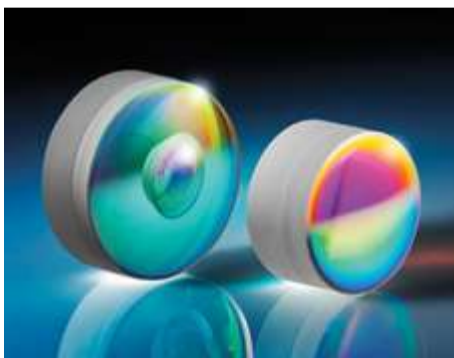
$$R_{abs} \leq 1.0\% @ 800 - 1550nm$$

$$R_{avg} \leq 0.7\% @ 750 - 1550nm$$

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

[Click Here to Download Data](#)

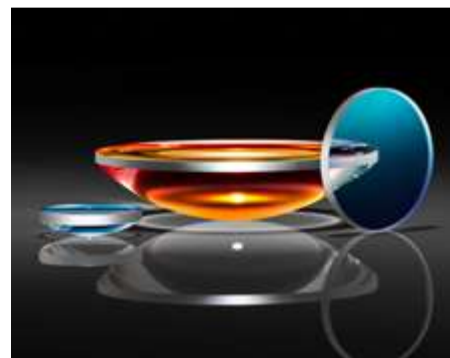
Related Products



Near-IR (NIR) Achromatic Lenses



NIR II Coated Plano-Convex (PCX) Lenses



UV Fused Silica Plano-Convex (PCX) Lenses - NIR II Coated



Optical Cleaning

Frequently Purchased Together



#32-972 - 50.0mm Dia. x 100.0mm FL, Uncoated, Plano-Convex Lens
₹4,994

Qty



#33-431 - 25mm Dia, 0 - 26° Risley Prism Mount
₹48,225

Qty



#34-475 - 50mm Dia. White Diffusing Glass
₹4,565

Qty



#45-151 - 50.0mm Dia. x 200.0mm FL, Uncoated, Plano-Convex Lens
₹4,994

Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
	50.0/50.8mm Optic Dia., SM2 Thin Mount	Fixed		#17-716	₹3,658 Request Quote	20+ In Stock <input type="text" value="1"/>
	50.0mm Optic Dia., Optic Mount	Fixed		#64-567	₹4,969 Request Quote	3 In Stock <input type="text" value="1"/>
	50.0mm Optic Dia., Optic Mount	Fixed		#64-568	₹4,969 Request Quote	7 In Stock <input type="text" value="1"/>
	50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	₹31,074 Request Quote	1 In Stock <input type="text" value="1"/>
	50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	₹61,039 Request Quote	20+ In Stock <input type="text" value="1"/>
	50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	₹84,748 Request Quote	10 In Stock <input type="text" value="1"/>

Check out our full selection of mounts [here](#).

Resources

Media Type

- Application Note
- Glossary
- Technical Tool
- Video
- FAQ
- Trending in Optics

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

An Introduction to Optical Coatings

APPLICATION NOTE

Understanding Optical Specifications

APPLICATION NOTE

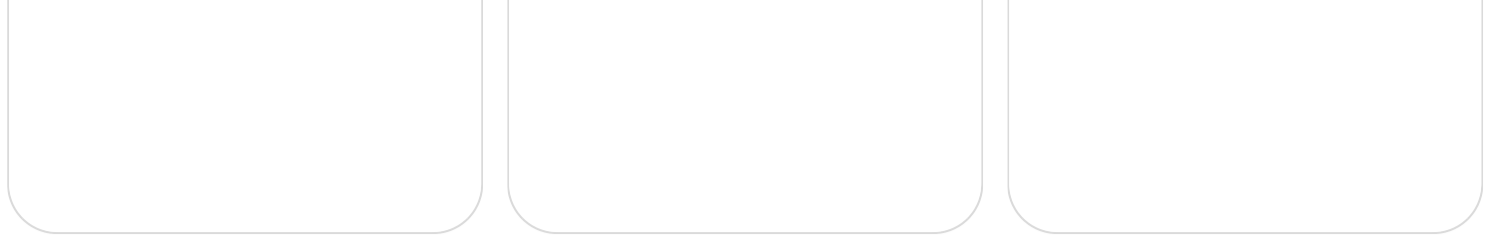
Lens Geometry Performance Comparison

GLOSSARY

NIR (Near Infrared)

GLOSSARY

VIS/NIR Coating



[View More](#)

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