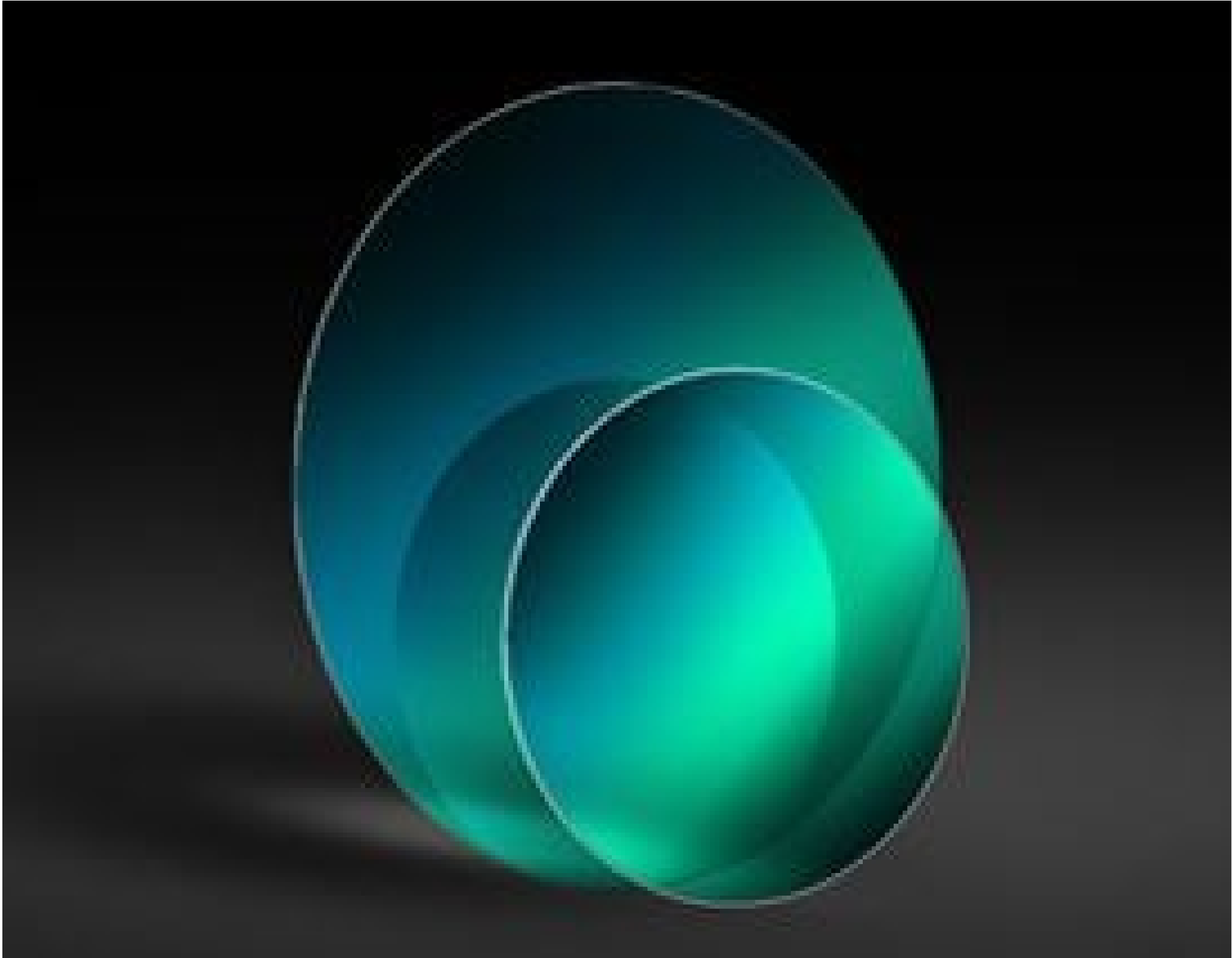


TECHSPEC®

20mm Diameter NIR I, Ultra-Thin N-BK7 Window

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Ultra-Thin N-BK7 Windows

Stock **#22-047** **6 In Stock**

-

1

+

€117⁴²

ADD TO CART

Volume Pricing	
Qty 1-5	€117,42 each
Qty 6-25	€91,67 each
Qty 26-49	€88,58 each
Need More?	Request Quote

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 Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Type:
Protective Window

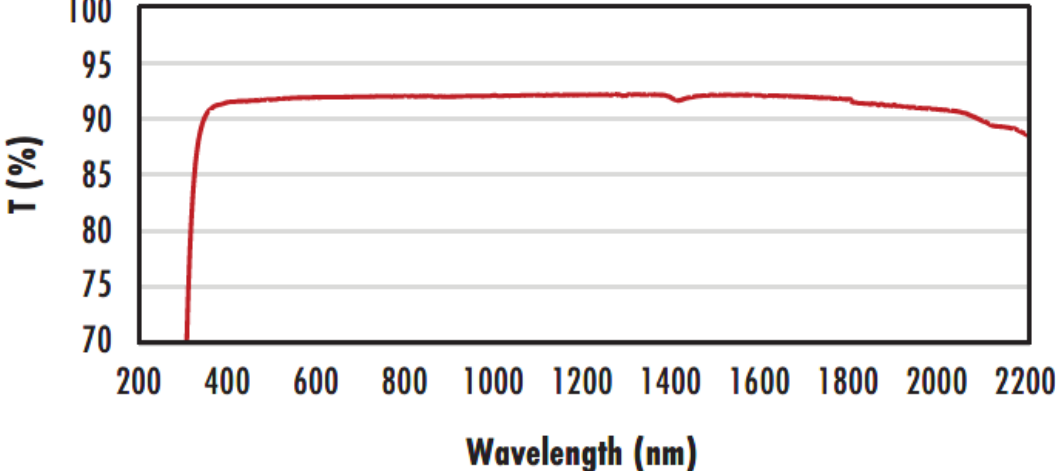
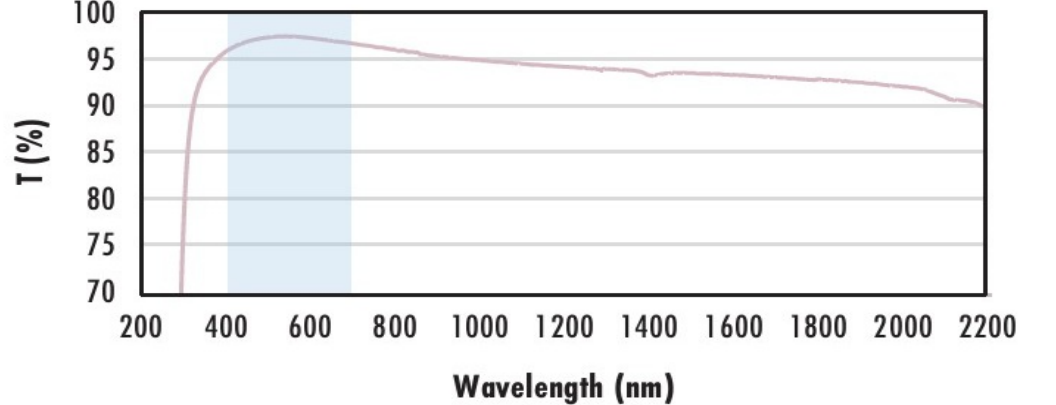
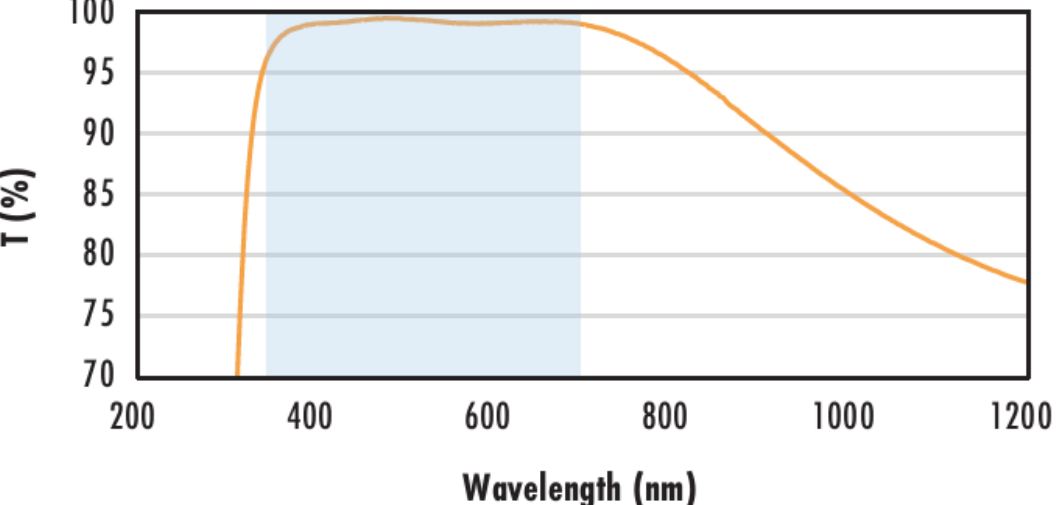
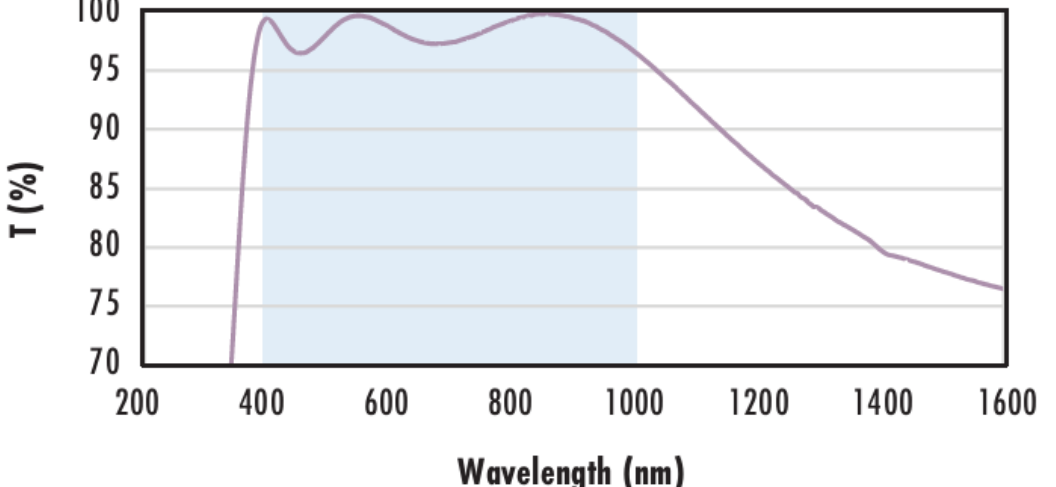
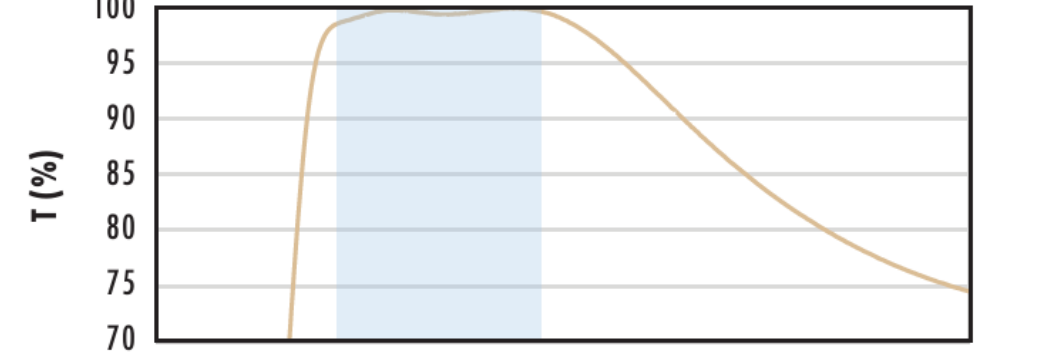
Physical & Mechanical Properties	
Protective as needed	Bevel:
18.00	Clear Aperture CA (mm):
20.00 +0.00/-0.10	Diameter (mm):
0.20 ±0.025	Thickness (mm):
Fine Ground	Edges:
610.00	Knoop Hardness (kg/mm²):
<30	Parallelism (arcsec):
0.21	Poisson's Ratio:
82	Young's Modulus (GPa):
Optical Properties	
64.17	Abbe Number (v _d):
NIR I (600-1050nm)	Coating:
R _{avg} ≤0.5% @ 600 - 1050nm	Coating Specification:
1.516	Index of Refraction (n _d):
N-BK7	Substrate:
20-10	Surface Quality:
λ/2	Transmitted Wavefront, P-V:
600 - 1050	Wavelength Range (nm):
7 J/cm² @ 1064nm, 10ns	Damage Threshold, By Design: ☐
Material Properties	
7.1 (-30 to +70°C) 8.3 (+20 to +300°C)	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
2.51	Density (g/cm³):
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

PRODUCT DETAILS

- Ultra-Thin 0.20mm Thickness
 - Precision N-BK7 Substrate
 - Extremely Lightweight
- TECHSPEC® Ultra-Thin N-BK7 Windows are our thinnest windows available and are at least 1/10 the thickness of our traditional N-BK7 windows. Their extremely thin designs make them ideal for both weight and size-sensitive applications. Additionally, their high tolerance design yields minimal beam distortion and scatter. TECHSPEC® Ultra-Thin N-BK7 Windows are available uncoated or with a MgF2 anti-reflection coating. For custom sizes or coating options, please contact our [Sales Department](#).
- Note:** The Ultra-Thin N-BK7 Wndows are very fragile. Handle these windows with care.

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

20040060080010001200 Wavelength (nm)	
N-BK7 with YAG-BBAR Coating Typical Transmission T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 1400 1600 Wavelength (nm)	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 T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 1400 1600 Wavelength (nm)	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
N-BK7 with NIR II Coating Typical Transmission T (%) 100 95 90 85 80 75 70 200 400 600 800 1000 1200 1400 1600 1800 2000 Wavelength (nm)	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. Click Here to Download Data

CUSTOM

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

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