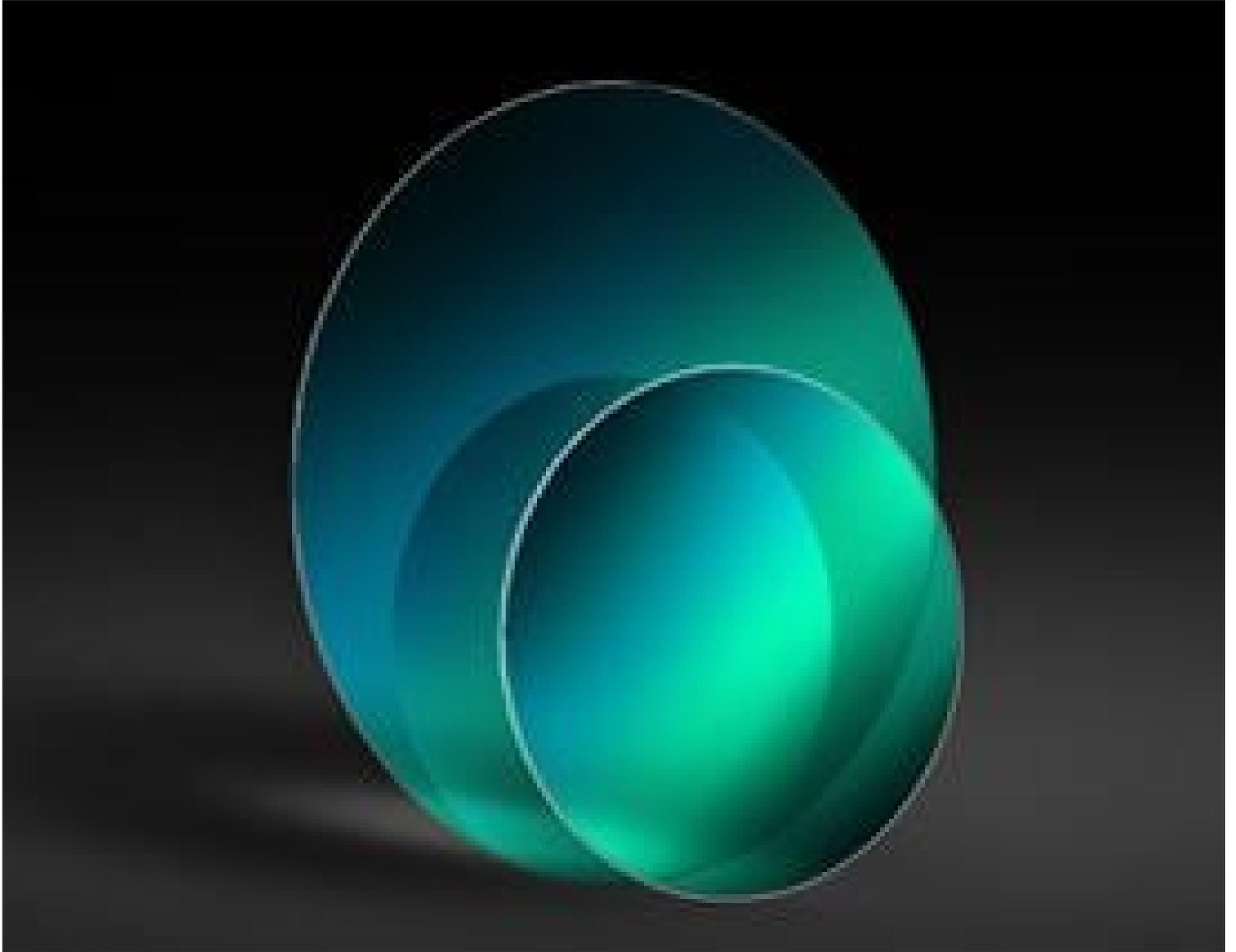


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TECHSPEC® 20mm Diameter NIR I, Ultra-Thin N-BK7 Window

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Ultra-Thin N-BK7 Windows

Stock **#22-047** **5 In Stock**

1 €130^{.00}

ADD TO CART

Volume Pricing

| | |
|------------|-------------------------------|
| Qty 1-5 | €130,00 each |
| Qty 6-25 | €102,00 each |
| Qty 26-49 | €98,50 each |
| Need More? | Request Quote |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Protective Window **Type:**

Physical & Mechanical Properties

18.00 **Clear Aperture CA (mm):**

| | |
|----------------------|--|
| 20.00 +0.00/-0.10 | Diameter (mm): |
| 0.20 ±0.025 | Thickness (mm): |
| Protective as needed | Bevel: |
| Fine Ground | Edges: |
| <30 | Parallelism (arcsec): |
| 0.21 | Poisson's Ratio: |
| 82 | Young's Modulus (GPa): |
| 610.00 | Knoop Hardness (kg/mm²): |

Optical Properties

| | |
|---------------------------------------|---|
| NIR I (600-1050nm) | Coating: |
| N-BK7 | Substrate: <input type="checkbox"/> |
| 1.516 | Index of Refraction (n_d): |
| 20-10 | Surface Quality: |
| λ/2 | Transmitted Wavefront, P-V: |
| 64.17 | Abbe Number (v_d): |
| R _{avg} ≤0.5% @ 600 - 1050nm | Coating Specification: |
| 600 - 1050 | Wavelength Range (nm): |
| 7 J/cm ² @ 1064nm, 10ns | Damage Threshold, By Design: |

Material Properties

| | |
|---|---|
| 2.51 | Density (g/cm³): |
| 7.1 (-30 to +70°C) 8.3 (+20 to +300°C) | Coefficient of Thermal Expansion CTE (10⁻⁶/°C): |

Regulatory Compliance

| | |
|------------------|------------------------------------|
| Compliant | RoHS 2015: |
| View | Certificate of Conformance: |
| Compliant | Reach 235: |

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

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- Ultra-Thin 0.20mm Thickness
- Precision N-BK7 Substrate
- Extremely Lightweight

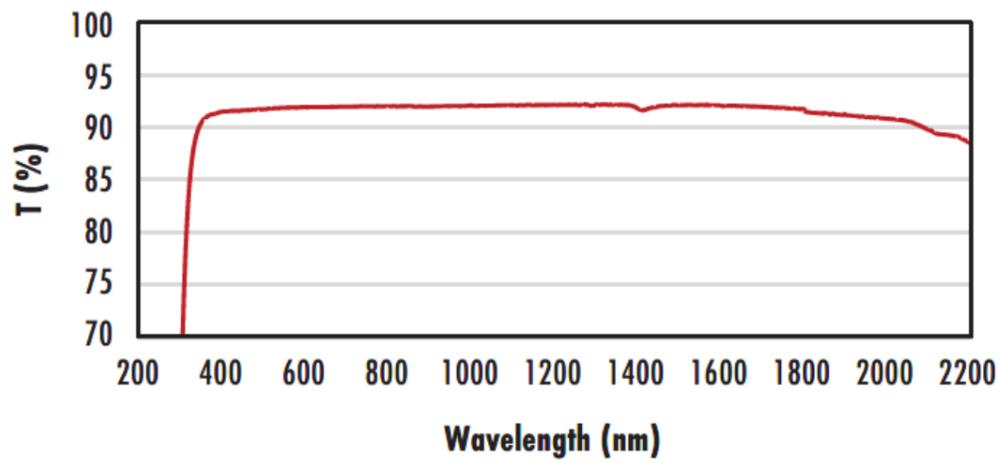
TECHSPEC® Ultra-Thin N-BK7 Windows are our thinnest windows available and are at least 1/10 the thickness of our traditional N-BK7 windows. Their extremely thin designs make them ideal for both weight and size-sensitive applications. Additionally, their high tolerance design yields minimal beam distortion 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 Windows are very fragile. Handle these windows with care.

Technical Information

N-BK7

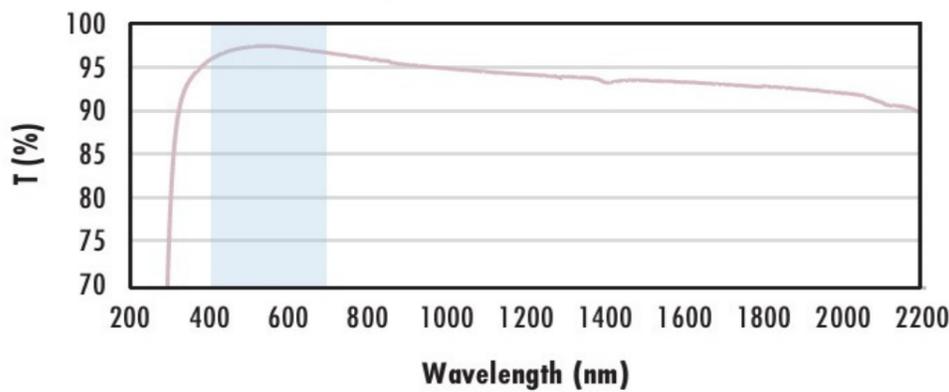
Uncoated N-BK7 Typical Transmission



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.

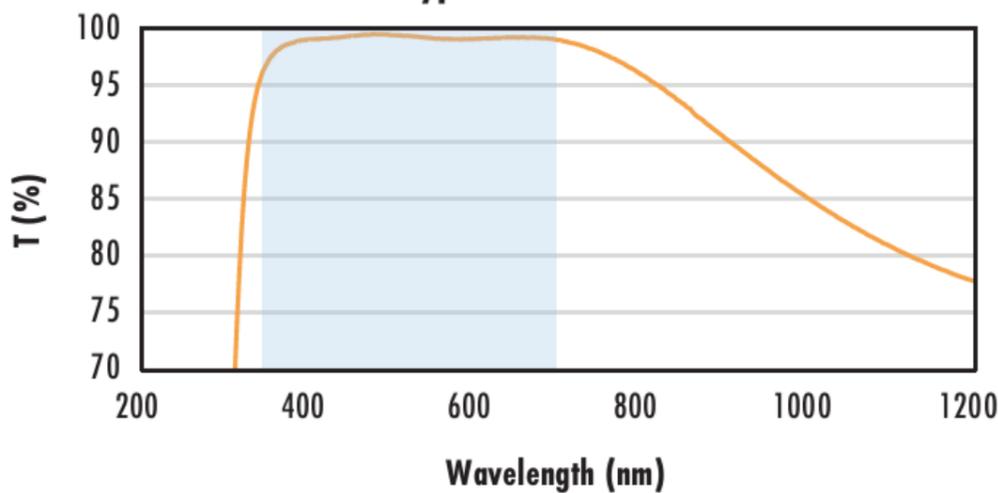
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

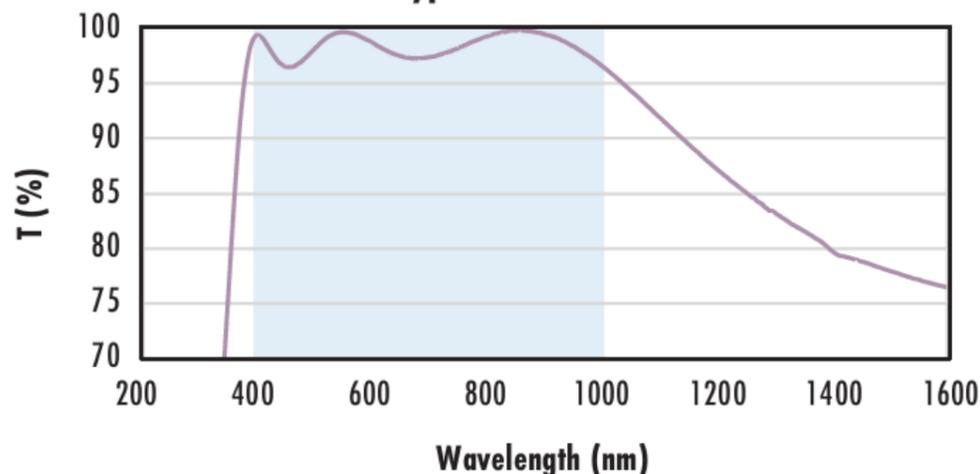
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

$$R_{abs} \leq 0.25\% @ 880\text{nm}$$

$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$$

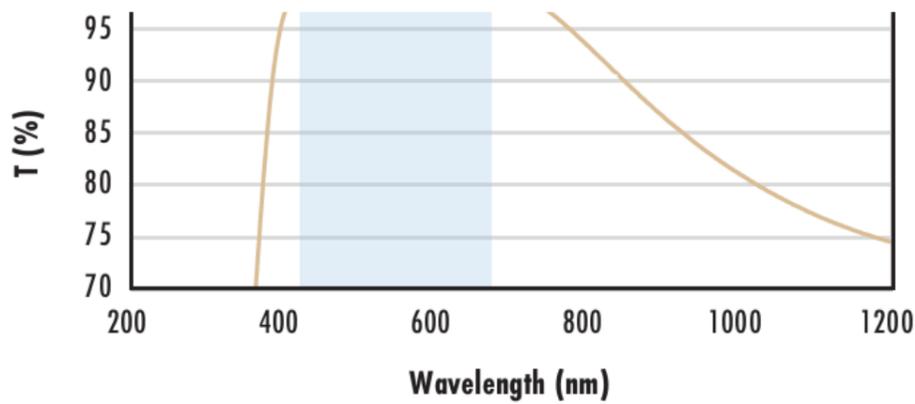
Data outside this range is not guaranteed and is for reference only.

[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°



Typical transmission of a 3mm thick N-BK7 window with VIS (425-675nm) coating at 0° AOI.

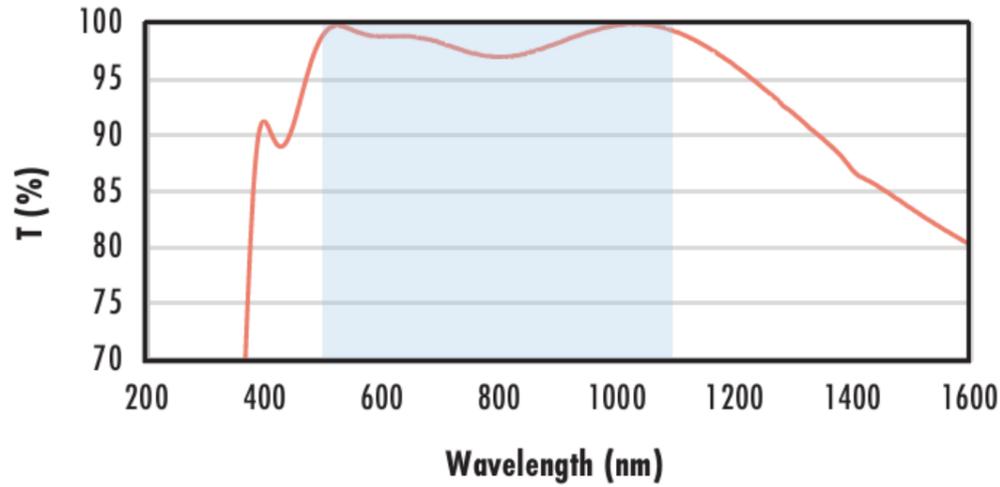
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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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.

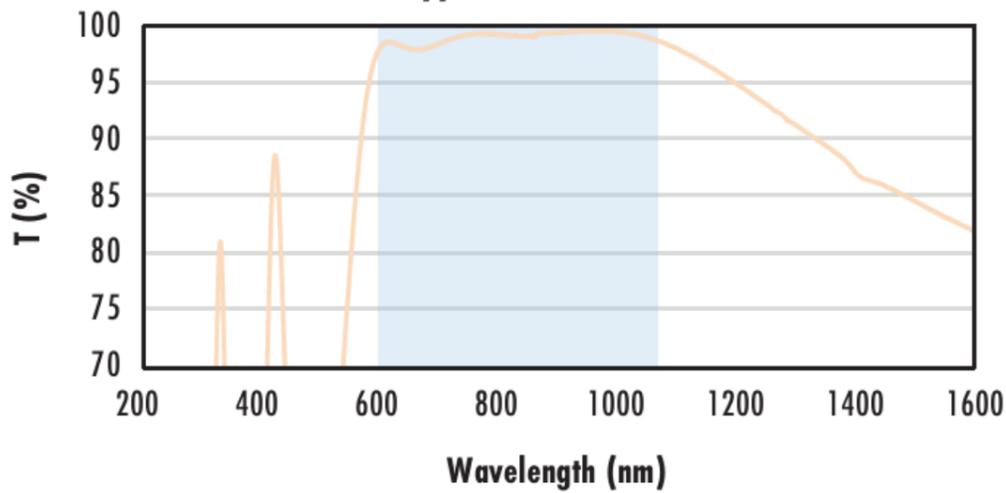
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\%$ @ 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.

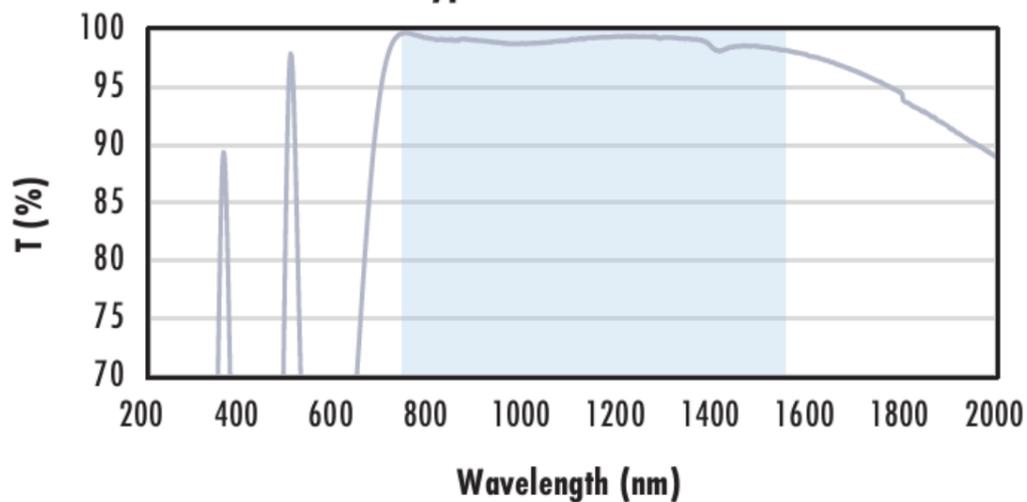
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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N-BK7 with NIR II Coating Typical Transmission



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](#)