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## TECHSPEC® 50mm Dia., 1mm Thick, MgF<sub>2</sub> Coated, B270 Window

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Stock #17-178 **14 In Stock**

⊖ 1 ⊕ S\$113<sup>00</sup>

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### Product Downloads

#### General

Protective Window **Type:**  
Glass **Type of Window:**

#### Physical & Mechanical Properties

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

50.00 +0.00/-0.25	<b>Diameter (mm):</b>
1.00 ±0.10	<b>Thickness (mm):</b>
Protective as needed	<b>Bevel:</b>
Fine Ground	<b>Edges:</b>
0.22	<b>Poisson's Ratio:</b>
71.5	<b>Young's Modulus (GPa):</b>
500.00	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b>

## Optical Properties

MgF <sub>2</sub> (632.8nm)	<b>Coating:</b>
<b>B270</b>	<b>Substrate:</b> □
1.523	<b>Index of Refraction (n<sub>d</sub>):</b>
60-40	<b>Surface Quality:</b>
58.3	<b>Abbe Number (v<sub>d</sub>):</b>
R <sub>avg</sub> ≤1.50% @ 632.8nm (N-BK7)	<b>Coating Specification:</b>
400 - 700	<b>Wavelength Range (nm):</b>
1λ (per 25.4mm Dia. within CA)	<b>Surface Flatness (P-V):</b>
10 J/cm <sup>2</sup> @ 532nm, 10ns	<b>Damage Threshold, By Design:</b> □

## Material Properties

2.56	<b>Density (g/cm<sup>3</sup>):</b>
9.4 (+20 to +300°C)	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>

## Regulatory Compliance

<b>Compliant</b>	<b>RoHS 2015:</b>
<b>View</b>	<b>Certificate of Conformance:</b>
<b>Compliant</b>	<b>Reach 235:</b>

### 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

- Large Selection of Sizes
- Available Uncoated, MgF<sub>2</sub>, or VIS-NIR Anti-Reflection (AR) Coated
- Custom Sizes Available for Volume OEM Requirements

TECHSPEC® B270 Windows offer a high transmission from the visible to the near-infrared (NIR). They have a similar refractive index to N-BK7 while being more cost-effective. These windows are often used as a protective element due to their high solarization stability and chemical resistance, making them ideal for standard window applications. TECHSPEC® B270 Windows are available either uncoated or coated with a MgF<sub>2</sub> or VIS-NIR Anti-Reflection (AR) Coating. Both circular and square options are offered in various sizes, and custom sizes and coatings are available for OEM applications.

## Technical Information



## Compatible Mounts

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