

TECHSPEC<sup>®</sup> 40mm Dia., 4mm Thick, VIS-NIR Coated  $\lambda$ /10 Fused Silica Window



Stock **#84-457** 7 In Stock

-

1

+

€274<sup>.00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €274,00 each                  |
| Qty 6-25       | €218,00 each                  |
| Qty 26-49      | €205,00 each                  |
| Need More?     | <a href="#">Request Quote</a> |

!

 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

Protective as needed

Bevel:

80

Clear Aperture (%):

|                   |                          |
|-------------------|--------------------------|
| 32.00             | Clear Aperture CA (mm):  |
| 40.00 +0.00/-0.20 | Diameter (mm):           |
| 4.00 ±0.10        | Thickness (mm):          |
| Fine Ground       | Edges:                   |
| 522.00            | Knoop Hardness (kg/mm²): |
| <5                | Parallelism (arcsec):    |
| 0.16              | Poisson's Ratio:         |
| 73                | Young's Modulus (GPa):   |

| Optical Properties                                                                                                                           |                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 67.8                                                                                                                                         | Abbe Number (v <sub>d</sub> ):         |
| VIS-NIR (400-1000nm)                                                                                                                         | Coating:                               |
| Coating Specification:<br>R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm |                                        |
| 1.458                                                                                                                                        | Index of Refraction (n <sub>d</sub> ): |
| <a href="#">Fused Silica</a> (Corning 7980)                                                                                                  | Substrate:                             |
| 20-10                                                                                                                                        | Surface Quality:                       |
| λ/10                                                                                                                                         | Transmitted Wavefront, P-V:            |
| 400 - 1000                                                                                                                                   | Wavelength Range (nm):                 |
| Damage Threshold, Reference: <input type="checkbox"/><br>5 J/cm² @ 532nm, 10ns                                                               |                                        |

| Material Properties                                                                                                               |                  |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------|
| Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C):<br>0.52 (+5 to +35°C)<br>0.57 (0 to +200°C)<br>0.48 (-100 to +200°C) |                  |
| 2.20                                                                                                                              | Density (g/cm³): |

| Regulatory Compliance     |                             |
|---------------------------|-----------------------------|
| <a href="#">Compliant</a> | RoHS 2015:                  |
| <a href="#">View</a>      | Certificate of Conformance: |
| <a href="#">Compliant</a> | Reach 235:                  |

## Product Details

- UV, Visible, and NIR Anti-Reflection Coated Versions Available
- λ/10 Transmitted Wavefront Distortion
- Circular and Square Sizes from 2mm to 150mm
- [1λ](#) or [λ/4](#) UV Fused Silica Windows Also Available

TECHSPEC® λ/10 UV Fused Silica Windows feature laser-grade surface quality and parallelism. In addition, these windows will limit the transmitted wavefront distortion to λ/10. The superior transmission characteristics, excellent thermal properties, and high tolerance manufacturing specifications make these windows an excellent choice for more demanding applications. TECHSPEC λ/10 UV Fused Silica Windows are available for purchase in circular and square sizes ranging from 2mm to 150mm.. These windows are offered uncoated or with anti-reflection coatings optimized for the UV or visible spectrum.

## Technical Information



UV FS Transmission Curve



| FUSED SILICA                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Uncoated Fused Silica<br/>Typical Transmission</div><div></div></div>                     | <p>Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                                         |
| <div><div>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</div><div></div></div> | <p>Typical transmission of a 3mm thick fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>                                                                                                                   |
| <div><div>Fused Silica with UV-AR Coating<br/>Typical Transmission</div><div></div></div>           | <p>Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{abs} \leq 1.0\% \text{ @ } 250 - 425\text{nm}</math><br/><math>R_{avg} \leq 0.75\% \text{ @ } 250 - 425\text{nm}</math><br/><math>R_{avg} \leq 0.5\% \text{ @ } 370 - 420\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p> |



|                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</div></div> | <div>Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><div><math>R_{abs} \leq 0.25\%</math> @ 532nm</div><div><math>R_{abs} \leq 0.25\%</math> @ 1064nm</div><div><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</div></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>           |
| <div><div>Fused Silica with NIR I Coating</div><div>Typical Transmission</div></div>   | <div>Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><div><math>R_{avg} \leq 0.5\%</math> @ 600 - 1050nm</div></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                   |
| <div><div>Fused Silica with NIR II Coating</div><div>Typical Transmission</div></div> | <div>Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><div><math>R_{abs} \leq 1.5\%</math> @ 750 - 800nm</div><div><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm</div><div><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</div></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div> |

Coating Curves

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](#).

Compatible Mounts

