

TECHSPEC<sup>®</sup> 25 x 25mm, 2mm Thick YAG-BBAR Coated, 1λ Fused Silica Window



TECHSPEC<sup>®</sup> 1λ UV Fused Silica Windows

Stock **#25-228** **5 In Stock**

-

1

+

£99<sup>20</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | £99.20 each                   |
| Qty 6-25       | £78.40 each                   |
| Qty 26-49      | £73.60 each                   |
| Need More?     | <a href="#">Request Quote</a> |

**i** Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

22.50 x 22.50

Clear Aperture CA (mm):

Dimensions (mm):

|                           |                          |
|---------------------------|--------------------------|
| 25.00 x 25.00 +0.00/-0.20 |                          |
| 2.00 ±0.38                | Thickness (mm):          |
| 25.00                     | Length (mm):             |
| 25.00                     | Width (mm):              |
| <5                        | Parallelism (arcmin):    |
| Protective as needed      | Bevel:                   |
| 90                        | Clear Aperture (%):      |
| Fine Ground               | Edges:                   |
| 0.16                      | Poisson's Ratio:         |
| 73                        | Young's Modulus (GPa):   |
| 522.00                    | Knoop Hardness (kg/mm²): |

|                                                                                                              |                                                       |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Optical Properties                                                                                           |                                                       |
| YAG-BBAR (500-1100nm)                                                                                        | Coating:                                              |
| Fused Silica (Corning 7980)                                                                                  | Substrate: <input type="checkbox"/>                   |
| 1.458                                                                                                        | Index of Refraction (n <sub>d</sub> ):                |
| 60-40                                                                                                        | Surface Quality:                                      |
| 67.8                                                                                                         | Abbe Number (v <sub>d</sub> ):                        |
| R <sub>abs</sub> ≤0.25% @ 532nm<br>R <sub>abs</sub> ≤0.25% @ 1064nm<br>R <sub>avg</sub> ≤1.0% @ 500 - 1100nm | Coating Specification:                                |
| 500 - 1100                                                                                                   | Wavelength Range (nm):                                |
| 1λ                                                                                                           | Surface Flatness (P-V):                               |
| 5 J/cm² @ 532nm, 10ns                                                                                        | Damage Threshold, Reference: <input type="checkbox"/> |

|                                                                   |                                                              |
|-------------------------------------------------------------------|--------------------------------------------------------------|
| Material Properties                                               |                                                              |
| 2.20                                                              | Density (g/cm³):                                             |
| 0.52 (+5 to +35°C)<br>0.57 (0 to +200°C)<br>0.48 (-100 to +200°C) | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
| 7980 0G                                                           | Fused Silica Grade:                                          |

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

## 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](#).

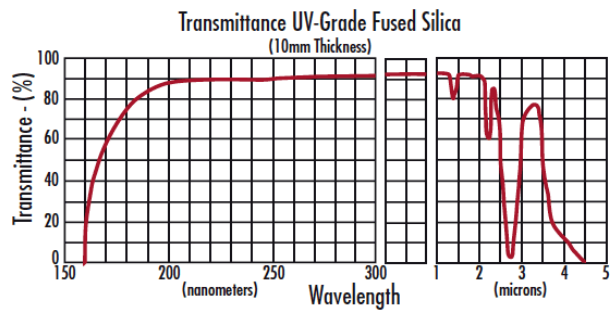
Product Details

- Available Uncoated or with Broadband Anti-Reflection Coatings
- Ideal for Cost Sensitive Broadband Applications
- Circular and Square Sizes from 5mm to 100mm
- $\lambda/4$  or  $\lambda/10$  UV Fused Silica Windows Also Available

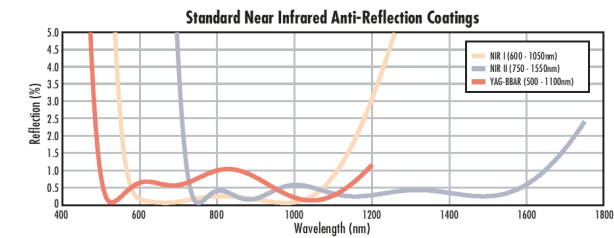
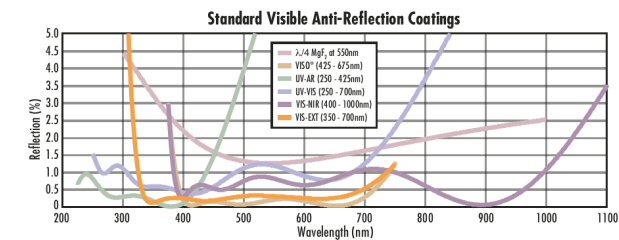
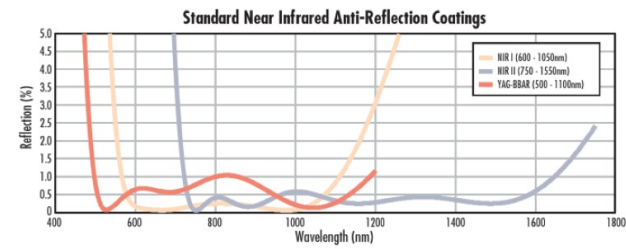
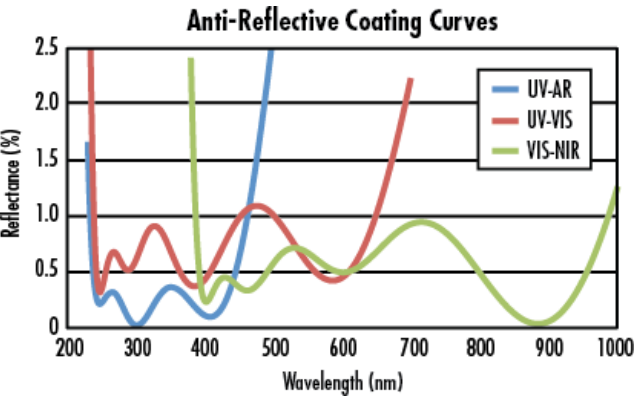
TECHSPEC® 1λ UV Fused Silica Windows are precision manufactured using UV-grade synthetic fused silica. In addition to superior transmission, the synthetic fused silica of these optical windows exhibits higher thermal properties, exceptional purity, and excellent environmental durability for demanding applications. The windows are ideal for cost-sensitive broadband applications and are available uncoated or with broadband anti-reflection coatings. TECHSPEC® 1λ UV Fused Silica Windows have circular and square sizes ranging from 5mm to 100mm.  $\lambda/4$  or  $\lambda/10$  UV Fused Silica Windows are also available.

**Note:** New additions to this product family may be specified with a transmitted wavefront distortion (TWD) specification instead of a surface flatness. For more information on the difference between these two specifications, see our application note on [Understanding Optical Windows](#).

Technical Information

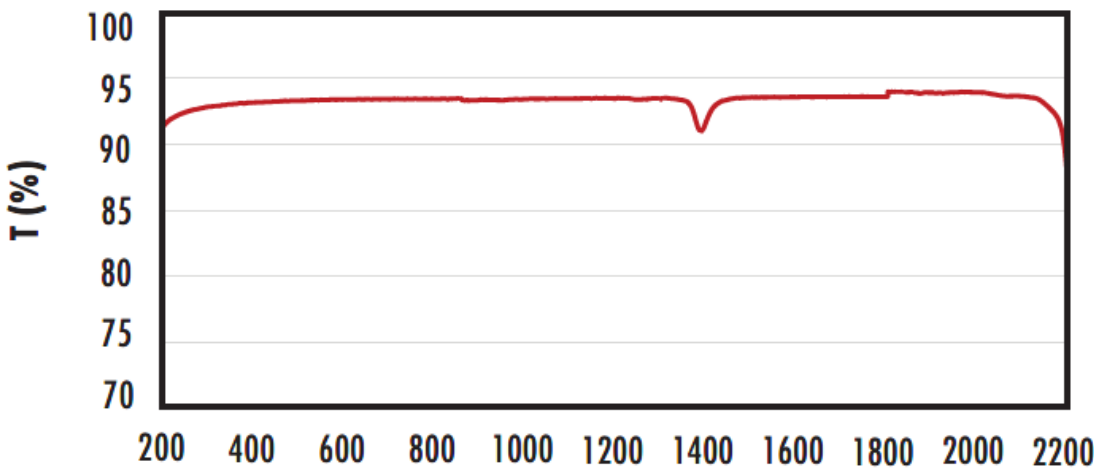


UV FS Transmission Curve



FUSED SILICA

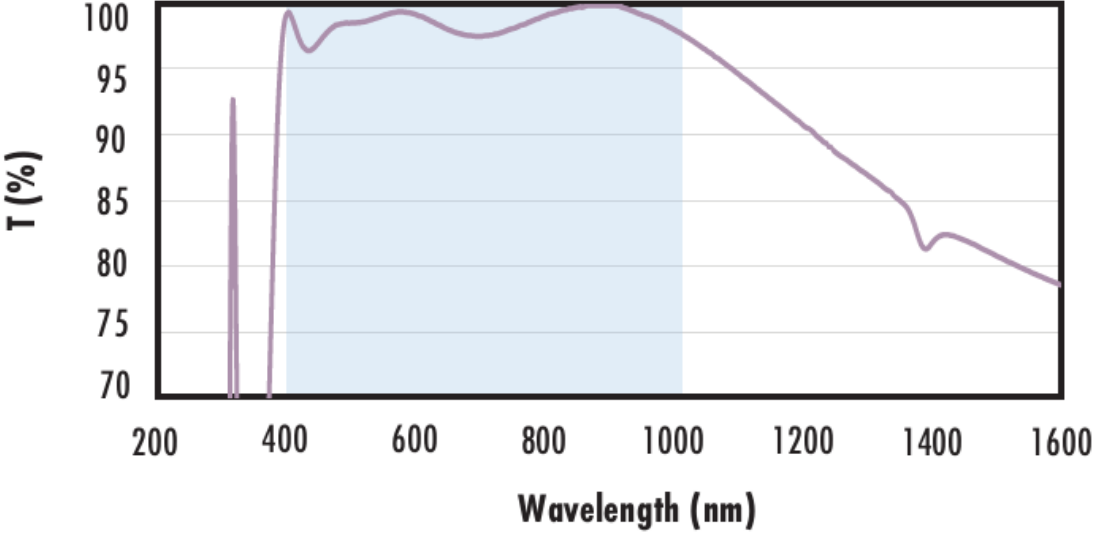
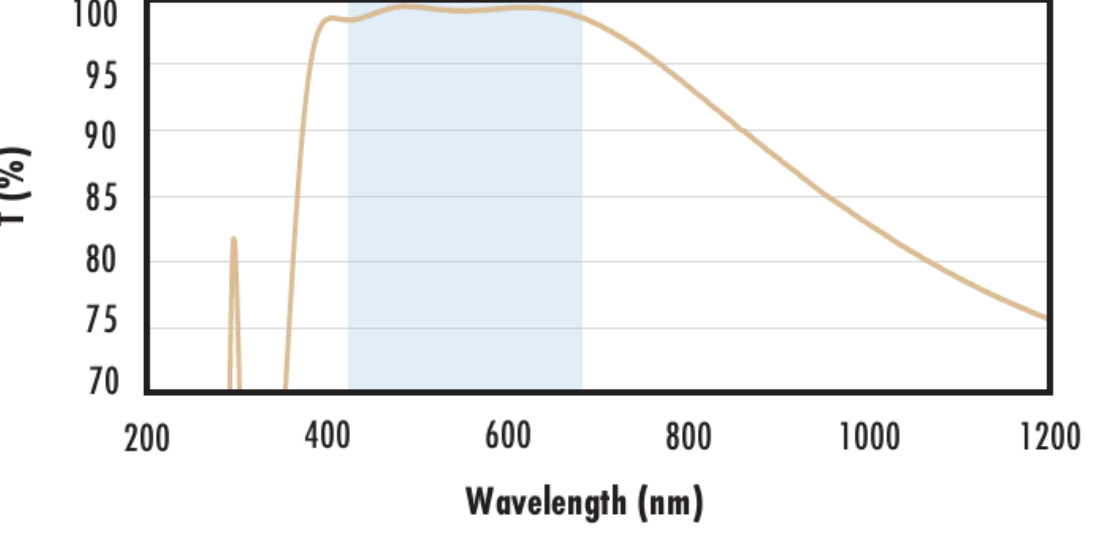
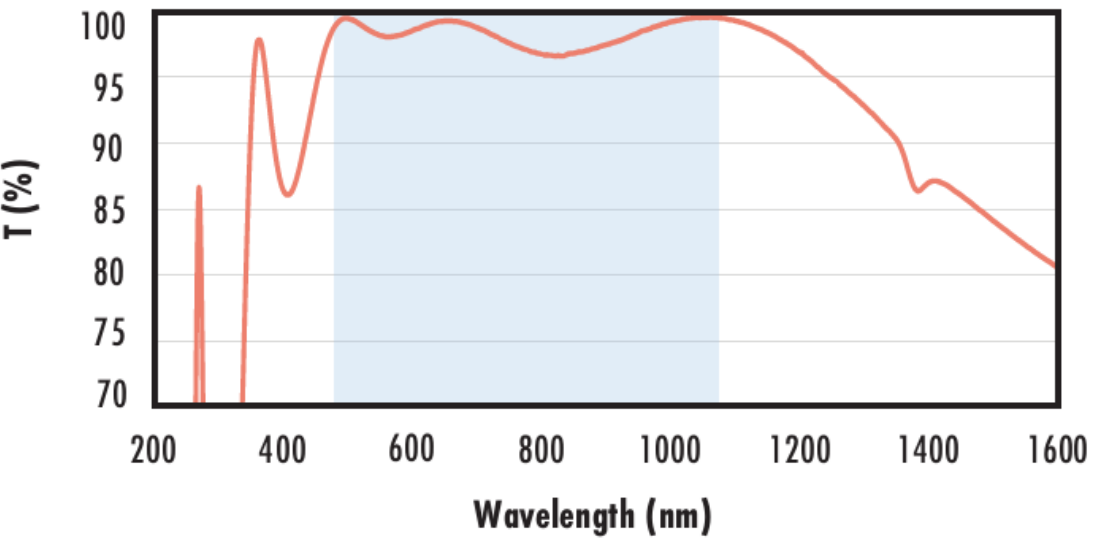
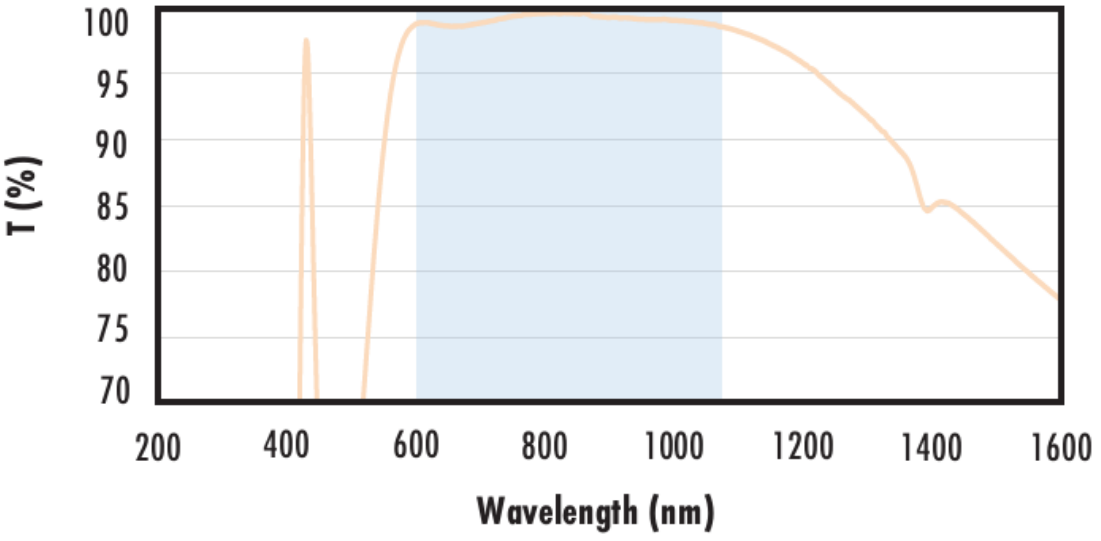
Uncoated Fused Silica  
Typical Transmission

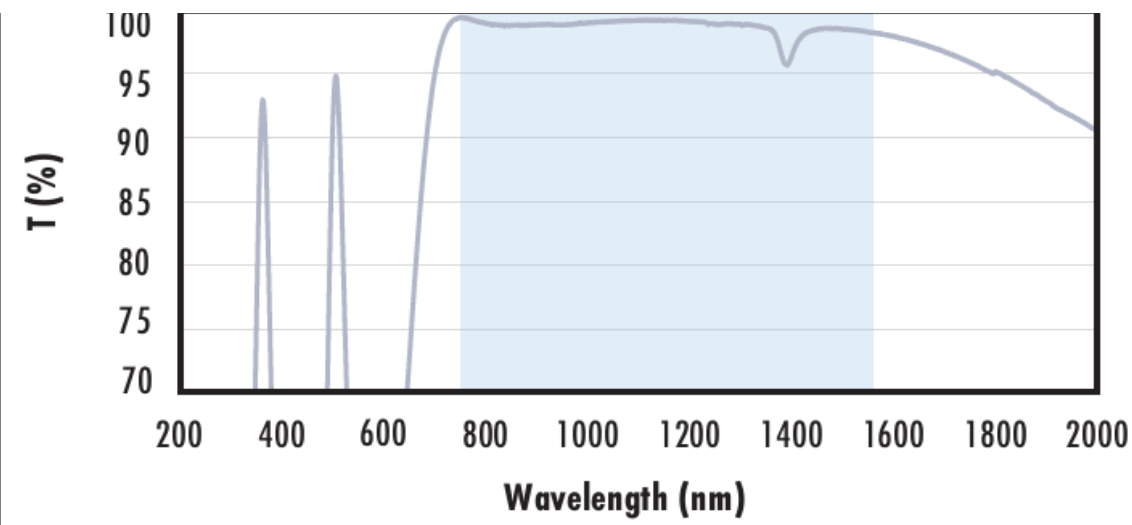


Typical transmission of a 3mm thick, uncoated fused silica window across the UV - NIR spectra.

[Click Here to Download Data](#)

| Wavelength (nm)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Fused Silica with MgF<sub>2</sub> Coating<br/>Typical Transmission</div> <div><p>The graph shows transmission T (%) on the y-axis (70-100) versus wavelength (nm) on the x-axis (200-2200). A red curve starts at ~94% at 200 nm, peaks at ~97% around 500 nm, has a small dip at 1400 nm, and drops sharply after 2000 nm. A blue shaded region covers the design range from 400 nm to 700 nm.</p></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>R<sub>avg</sub> ≤ 1.75% @ 400 - 700nm (N-BK7)</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>Fused Silica with UV-AR Coating<br/>Typical Transmission</div> <div><p>The graph shows transmission T (%) on the y-axis (70-100) versus wavelength (nm) on the x-axis (200-1200). A green curve rises from ~70% at 200 nm to ~100% by 300 nm, remains near 100% until ~450 nm, then gradually decreases to ~76% at 1200 nm. A blue shaded region covers the design range from 250 nm to 425 nm.</p></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>R<sub>abs</sub> ≤ 1.0% @ 250 - 425nm<br/>R<sub>avg</sub> ≤ 0.75% @ 250 - 425nm<br/>R<sub>avg</sub> ≤ 0.5% @ 370 - 420nm</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>Fused Silica with UV-VIS Coating<br/>Typical Transmission</div> <div><p>The graph shows transmission T (%) on the y-axis (70-100) versus wavelength (nm) on the x-axis (200-1200). A purple curve rises from ~70% at 200 nm to ~98% by 300 nm, stays above 95% until ~700 nm, then decreases to ~77% at 1200 nm. A blue shaded region covers the design range from 250 nm to 700 nm.</p></div>            | <p>Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>R<sub>abs</sub> ≤ 1.0% @ 350 - 450nm<br/>R<sub>avg</sub> ≤ 1.5% @ 250 - 700nm</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>Fused Silica with VIS-EXT Coating<br/>Typical Transmission</div> <div><p>The graph shows transmission T (%) on the y-axis (70-100) versus wavelength (nm) on the x-axis (200-1200). An orange curve starts below 70% at 300 nm, rises to ~100% by 400 nm, remains flat until ~700 nm, then decreases to ~78% at 1200 nm. A blue shaded region covers the design range from 350 nm to 700 nm.</p></div>    | <p>Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>R<sub>avg</sub> ≤ 0.5% @ 350 - 700nm</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 VIS-NIR Coating</div><div>Typical Transmission</div><div></div></div>    | <div><div>Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) 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\% \text{ @ } 880\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><math>R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}</math></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><div>Fused Silica with VIS 0° Coating</div><div>Typical Transmission</div><div></div></div>    | <div><div>Typical transmission of a 3mm thick fused silica window with VIS 0° (425-675nm) 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 0.4\% \text{ @ } 425 - 675\text{nm}</math></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><div>Fused Silica with YAG-BBAR Coating</div><div>Typical Transmission</div><div></div></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\% \text{ @ } 532\text{nm}</math><math>R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}</math><math>R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}</math></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><div>Fused Silica with NIR I Coating</div><div>Typical Transmission</div><div></div></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\% \text{ @ } 600 - 1050\text{nm}</math></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><div>Fused Silica with NIR II Coating</div><div>Typical Transmission</div></div>                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



Typical transmission of a 3mm thick fused silica 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](#)