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



TECHSPEC® $\lambda/4$ UV Fused Silica Windows

Stock **#14-991** **3 In Stock**

⊖ 1 ⊕ £173⁰⁰

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Volume Pricing	
Qty 1-5	£173.60 each
Qty 6-25	£138.40 each
Qty 26-49	£129.60 each
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! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Protective Window **Type:**

Glass **Type of Window:**

Physical & Mechanical Properties

Clear Aperture CA (mm):

36.00

Diameter (mm):

40.00 +0.00/-0.10

Thickness (mm):

4.00 ±0.10

Parallelism (arcmin):

<1

Bevel:

Protective as needed

Clear Aperture (%):

90

Edges:

Fine Ground

Poisson's Ratio:

0.16

Young's Modulus (GPa):

73

Knoop Hardness (kg/mm²):

522.00

Optical Properties

Coating:

VIS-NIR (400-1000nm)

Substrate:

[Fused Silica](#) (Corning 7980)

Index of Refraction (n_d):

1.458

Surface Quality:

40-20

Transmitted Wavefront, P-V:

λ/4

Abbe Number (v_d):

67.8

Coating Specification:

R_{abs} ≤0.25% @ 880nm
R_{avg} ≤1.25% @ 400 - 870nm
R_{avg} ≤1.25% @ 890 - 1000nm

Wavelength Range (nm):

400 - 1000

Damage Threshold, Reference:

5 J/cm² @ 532nm, 10ns

Material Properties

Density (g/cm³):

2.20

Coefficient of Thermal Expansion CTE (10⁻⁶/°C):

0.52 (+5 to +35°C)
0.57 (0 to +200°C)
0.48 (-100 to +200°C)

Fused Silica Grade:

7980 0G

Regulatory Compliance

RoHS 2015:

[Compliant](#)

Certificate of Conformance:

[View](#)

REACH 241:

[Compliant](#)

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 BBAR Coated for UV, Visible, and NIR

- Ideal for Imaging Applications
- Circular and Rectangular Sizes from 5 to 200mm
- 1 λ or $\lambda/10$ UV Fused Silica Windows Also Available

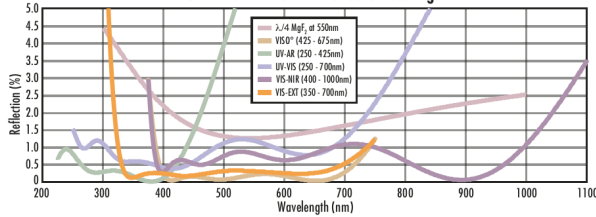
TECHSPEC® $\lambda/4$ UV Fused Silica Windows are manufactured with 40-20 surface quality and $\lambda/4$ transmitted wavefront error specifications, making them ideal for imaging applications. Featuring UV fused silica substrates, these windows provide high transmission from the ultraviolet (UV) through the visible and near-infrared (NIR). Broadband anti-reflection (BBAR) coating options are available to minimize reflection losses and increase transmission. TECHSPEC $\lambda/4$ UV Fused Silica Windows are used in optical imaging applications, in low to medium powered laser applications, and as protective windows, especially in applications requiring transmission of UV light.

Technical Information

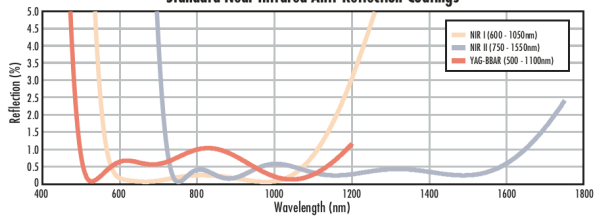
Anti-Reflection Coating Curves



Standard Visible Anti-Reflection Coatings



Standard Near Infrared Anti-Reflection Coatings



FUSED SILICA

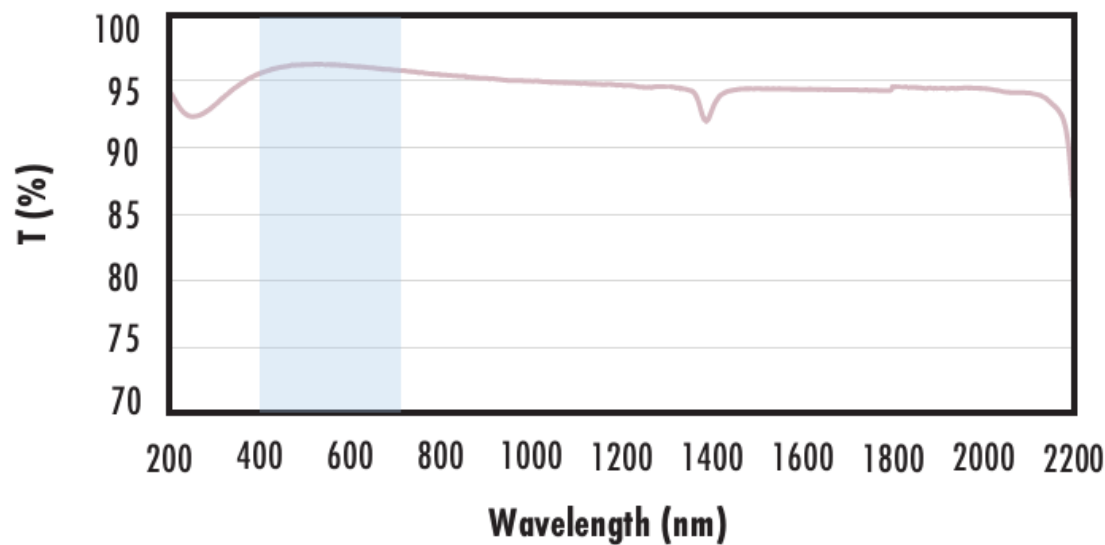
Uncoated Fused Silica Typical Transmission



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

[Click Here to Download Data](#)

Fused Silica with MgF₂ Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with MgF₂ (400-700nm) coating at 0° AOI.

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

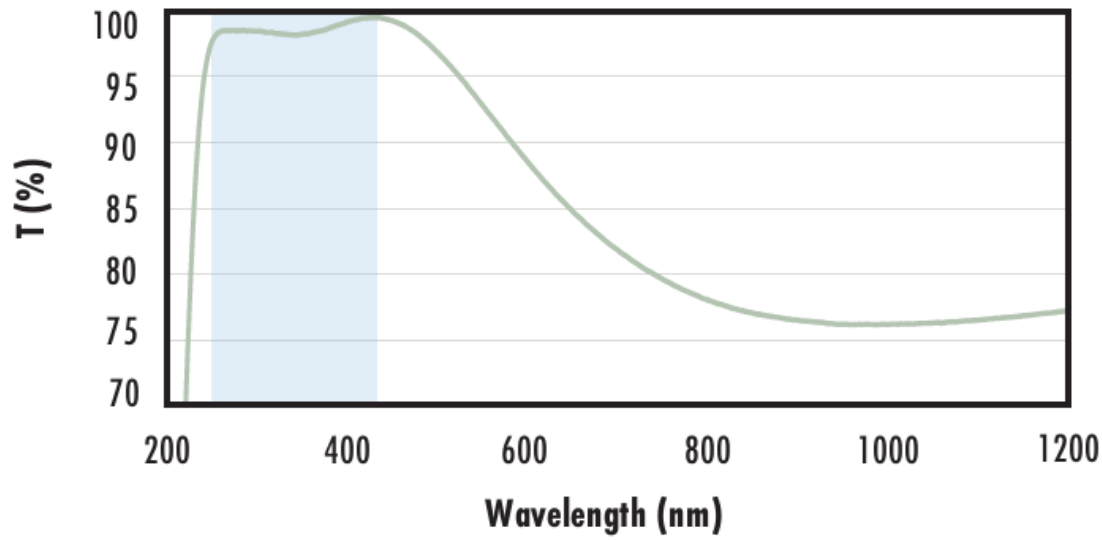
$$R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}$$

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

[Click Here to Download Data](#)

Fused Silica with UV-AR Coating Typical Transmission

typical transmission



Typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI.

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

$R_{abs} \leq 1.0\%$ @ 250 - 425nm
 $R_{avg} \leq 0.75\%$ @ 250 - 425nm
 $R_{avg} \leq 0.5\%$ @ 370 - 420nm

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

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**Fused Silica with UV-VIS Coating
Typical Transmission**



Typical transmission of a 3mm thick fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

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

$R_{abs} \leq 1.0\%$ @ 350 - 450nm
 $R_{avg} \leq 1.5\%$ @ 250 - 700nm

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

[Click Here to Download Data](#)

**Fused Silica with VIS-EXT Coating
Typical Transmission**



Typical transmission of a 3mm thick fused silica 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 - 700nm

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

[Click Here to Download Data](#)

**Fused Silica with VIS-NIR Coating
Typical Transmission**



Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

$R_{abs} \leq 0.25\%$ @ 880nm
 $R_{avg} \leq 1.25\%$ @ 400 - 870nm
 $R_{avg} \leq 1.25\%$ @ 890 - 1000nm

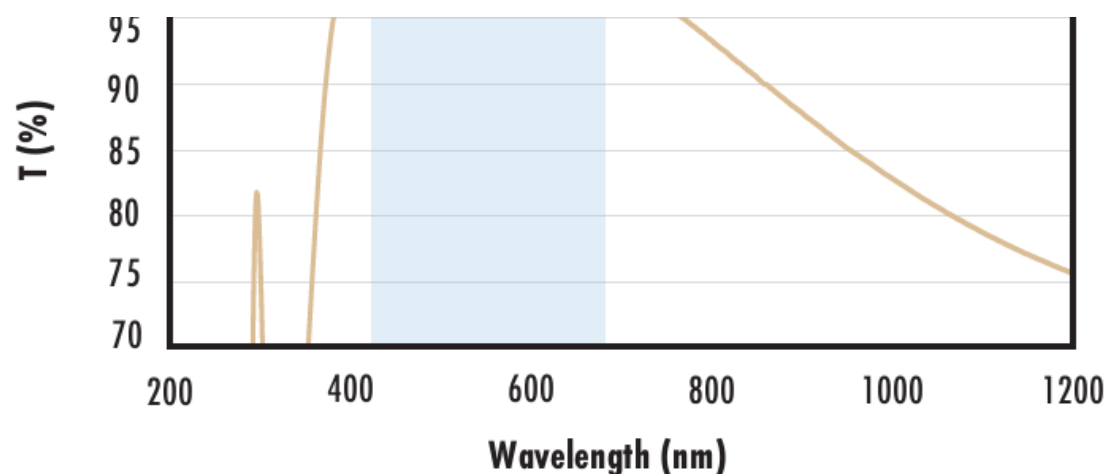
Data outside this range is not guaranteed and is for reference only.

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**Fused Silica with VIS 0° Coating
Typical Transmission**



Typical transmission of a 3mm thick fused silica window



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

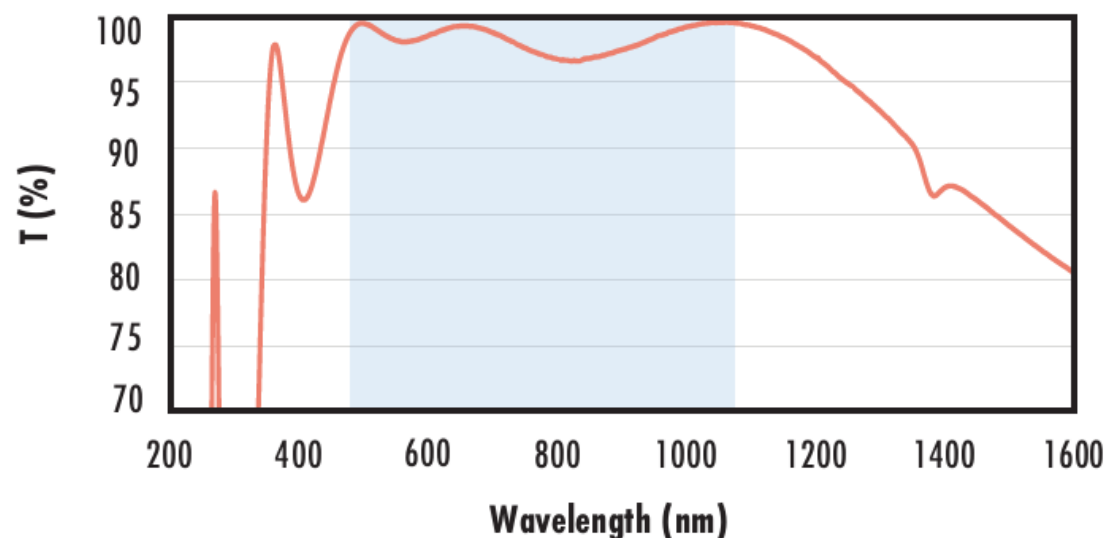
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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Fused Silica with YAG-BBAR Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

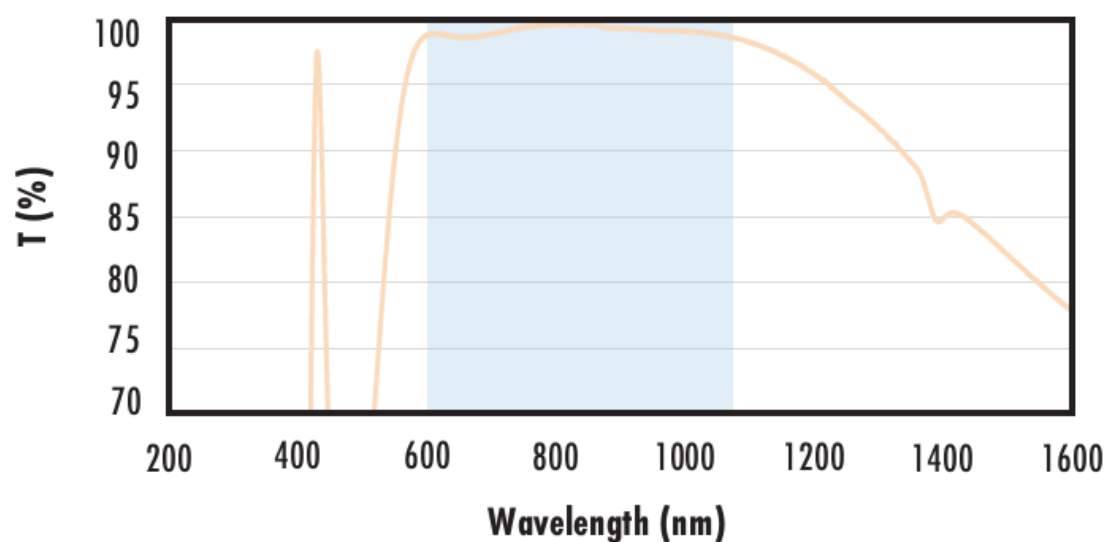
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 532nm$
 $R_{abs} \leq 0.25\% @ 1064nm$
 $R_{avg} \leq 1.0\% @ 500 - 1100nm$

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

[Click Here to Download Data](#)

Fused Silica with NIR I Coating Typical Transmission



Typical transmission of a 3mm thick fused silica 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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Fused Silica with NIR II Coating Typical Transmission



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](#)

[Coating Curves](#)

[Compatible Mounts](#)

