

TECHSPEC<sup>®</sup> 10mm Dia. x 20mm FL, MgF<sub>2</sub> Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock **#17-964** CLEARANCE **3 In Stock**

-

1

+

S\$141<sup>-40</sup>

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| Qty 1+         | S\$141.40 each                |
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| General                          |                     |
|----------------------------------|---------------------|
| Plano-Convex Lens                | Type:               |
| Physical & Mechanical Properties |                     |
| 10.00 -0.025                     | Diameter (mm):      |
| <1                               | Centering (arcmin): |

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| 3.00 ±0.05                            | Center Thickness CT (mm):                             |
| 1.52                                  | Edge Thickness ET (mm):                               |
| 9                                     | Clear Aperture CA (mm):                               |
| Protective as needed                  | Bevel:                                                |
| Optical Properties                    |                                                       |
| 20.00 @ 587.6nm                       | Effective Focal Length EFL (mm):                      |
| 17.94                                 | Back Focal Length BFL (mm):                           |
| MgF <sub>2</sub> (400-700nm)          | Coating:                                              |
| R <sub>avg</sub> ≤1.75% @ 400 - 700nm | Coating Specification:                                |
| Fused Silica (Corning 7980)           | Substrate: <input type="checkbox"/>                   |
| 40-20                                 | Surface Quality:                                      |
| 3 Rings                               | Power (P-V) @ 632.8nm:                                |
| 0.5 Rings                             | Irregularity (P-V) @ 632.8nm:                         |
| ±1                                    | Focal Length Tolerance (%):                           |
| 9.17                                  | Radius R <sub>1</sub> (mm):                           |
| 2                                     | f/#:                                                  |
| 0.25                                  | Numerical Aperture NA:                                |
| 400 - 700                             | Wavelength Range (nm):                                |
| 10 J/cm <sup>2</sup> @ 532nm, 10ns    | Damage Threshold, By Design: <input type="checkbox"/> |

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

Product Details

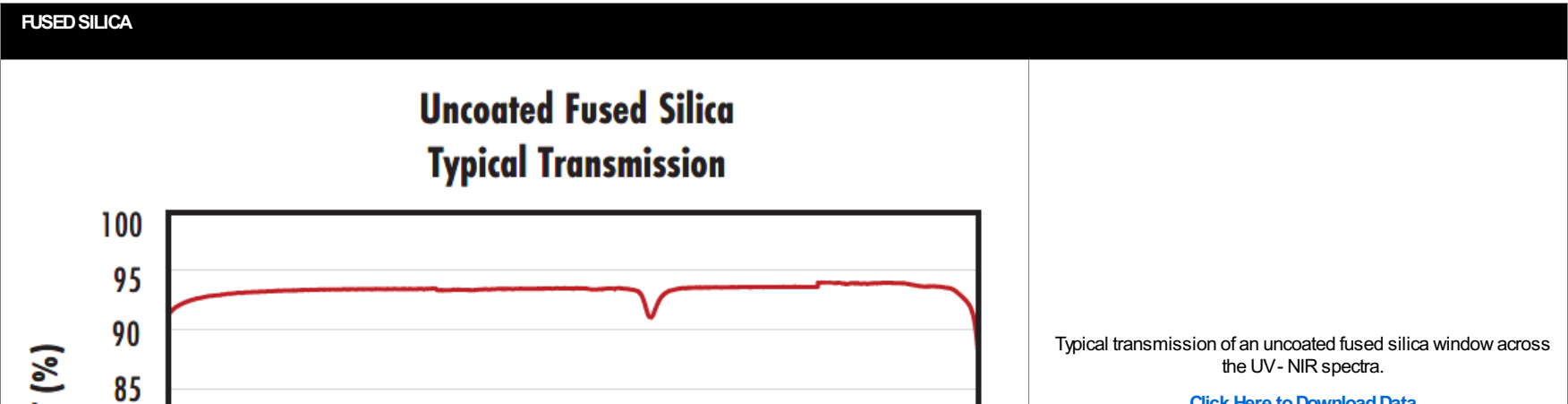
• AR Coated to Provide <1.75% Reflection per Surface for 400 - 700nm

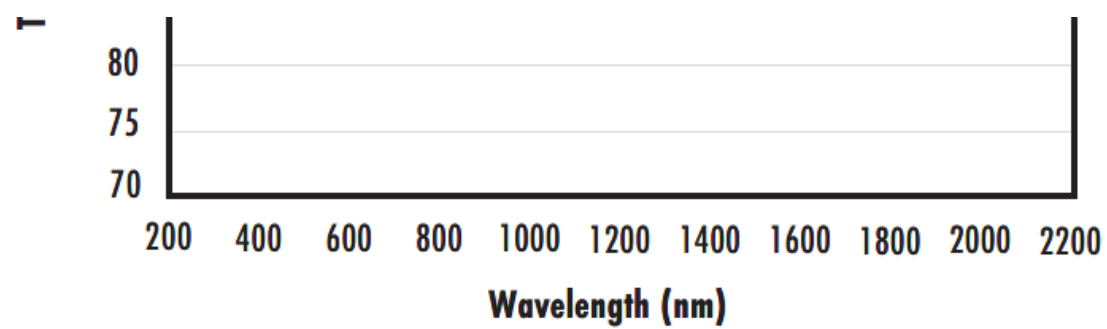
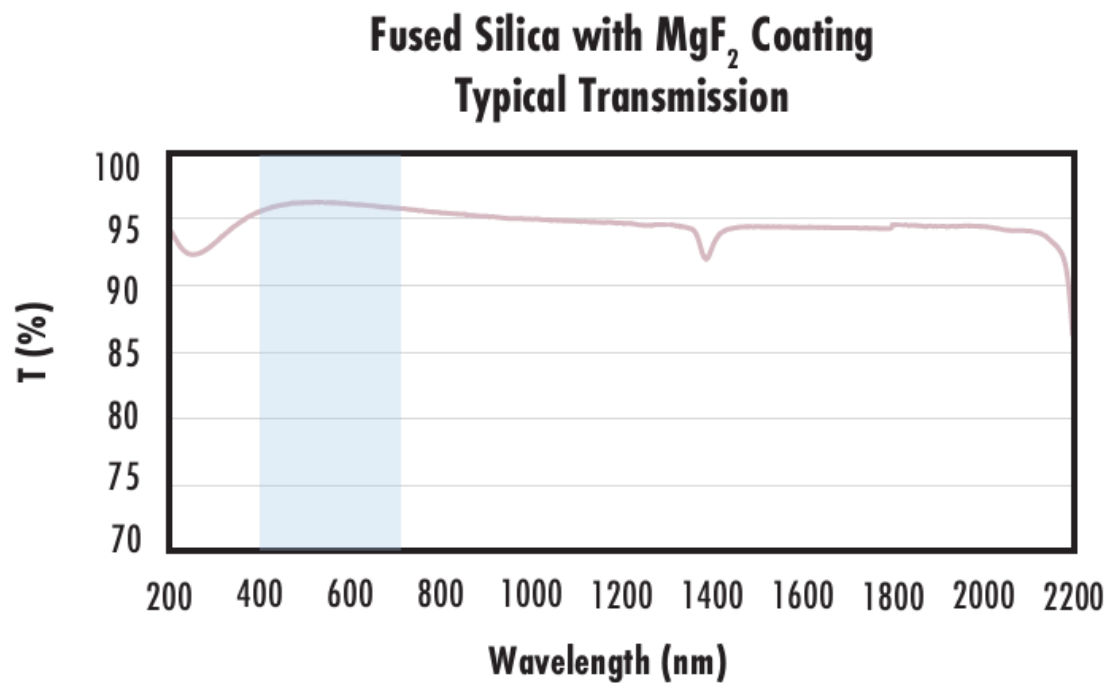
• Precision Fused Silica Substrate

• Various Coating Options: [Uncoated](#), [UV-AR](#), [UV-VIS](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses MgF2 Coated feature precision specifications and a [variety of coating options](#) on a broadband substrate. Fused Silica is commonly used in applications from the Ultraviolet (UV) through the Near-Infrared (NIR). Its low index of refraction, low coefficient of thermal expansion, and low inclusion content make it ideal for laser applications and harsh environmental conditions. TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses MgF2 Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are AR coated with MgF2 to increase performance in the VIS range.

Technical Information



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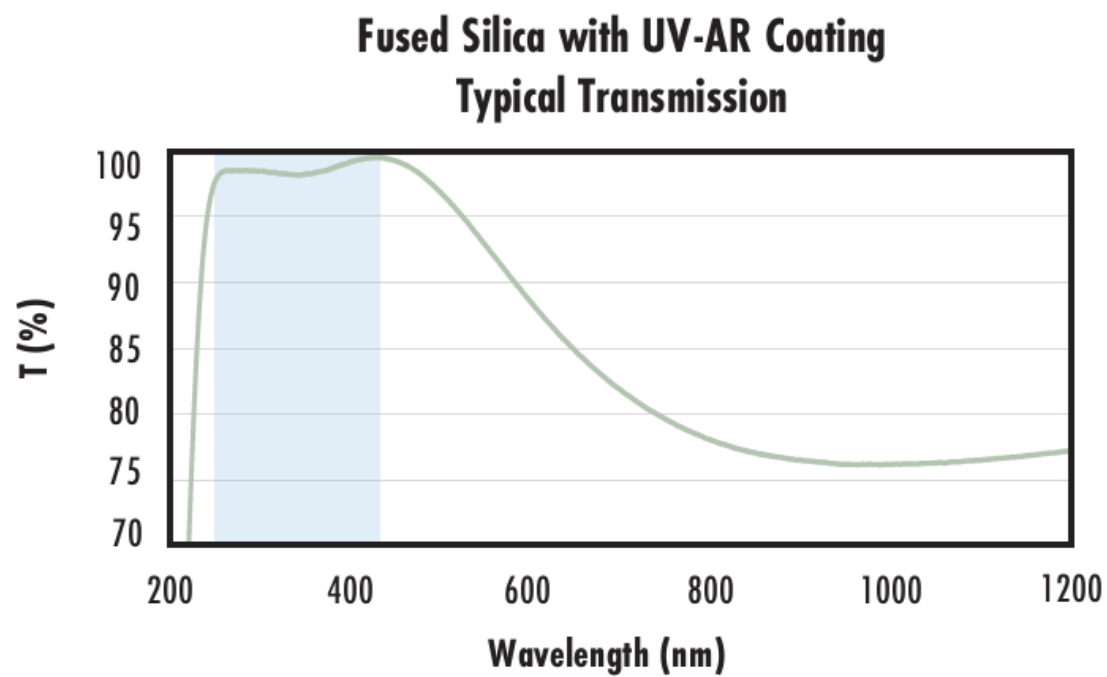
Typical transmission of a fused silica window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

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.

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

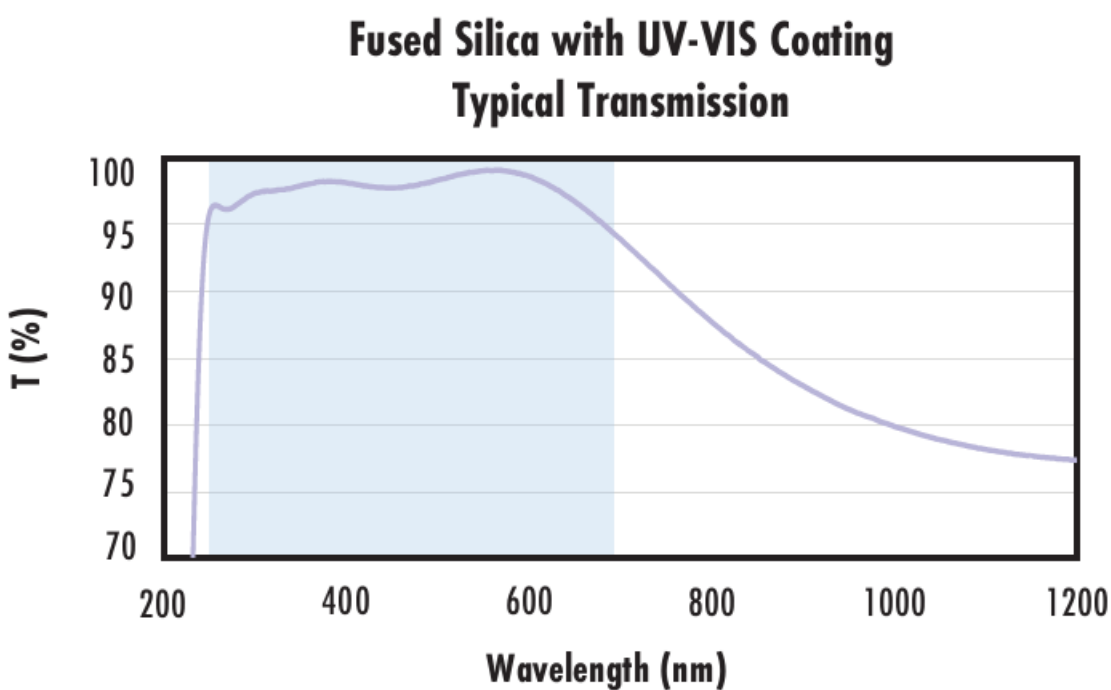
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{\text{abs}} \leq 1.0\% @ 250 - 425\text{nm}$$

$R_{avg} \leq 0.75\% @ 250 - 425nm$

$R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$

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

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

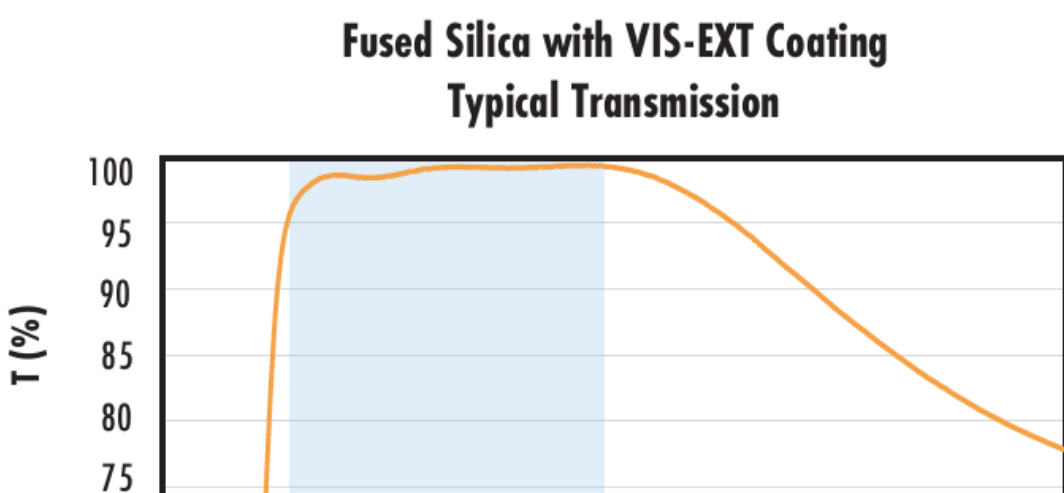
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 1.0\% @ 350 - 450nm$$

$$R_{avg} \leq 1.5\% @ 250 - 700nm$$

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

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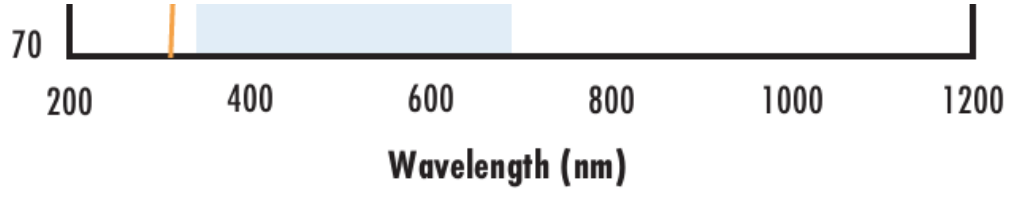
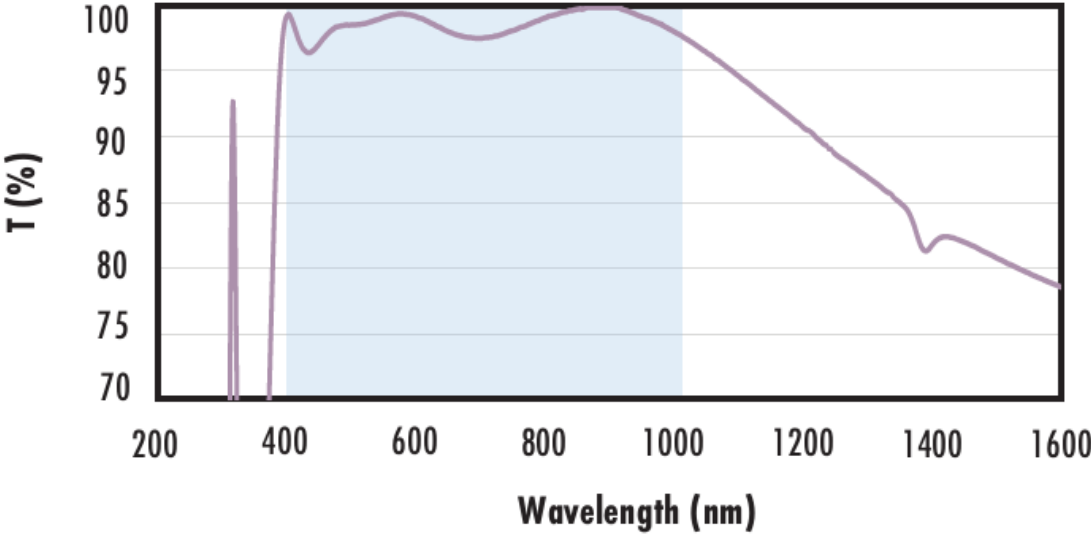
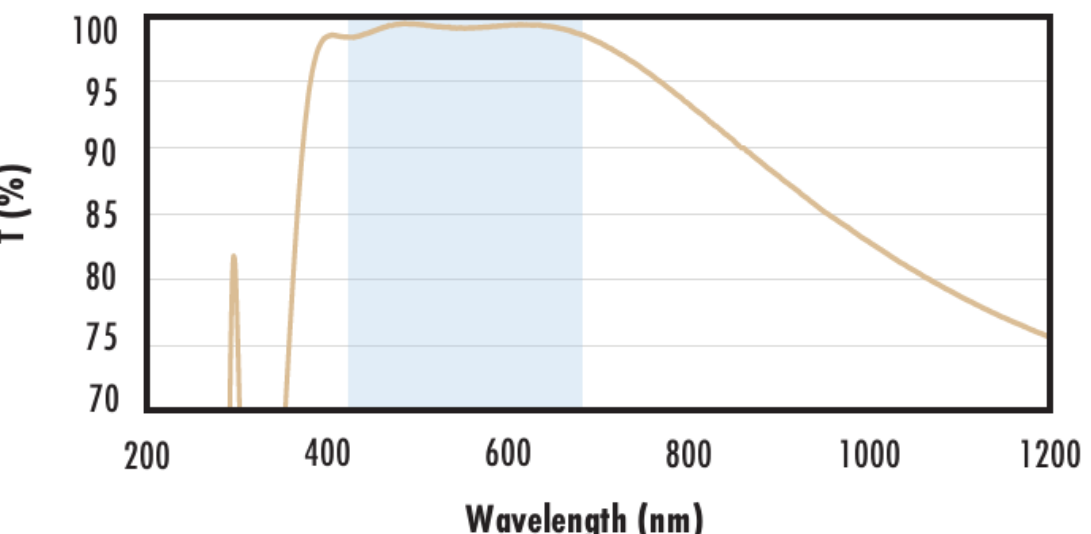
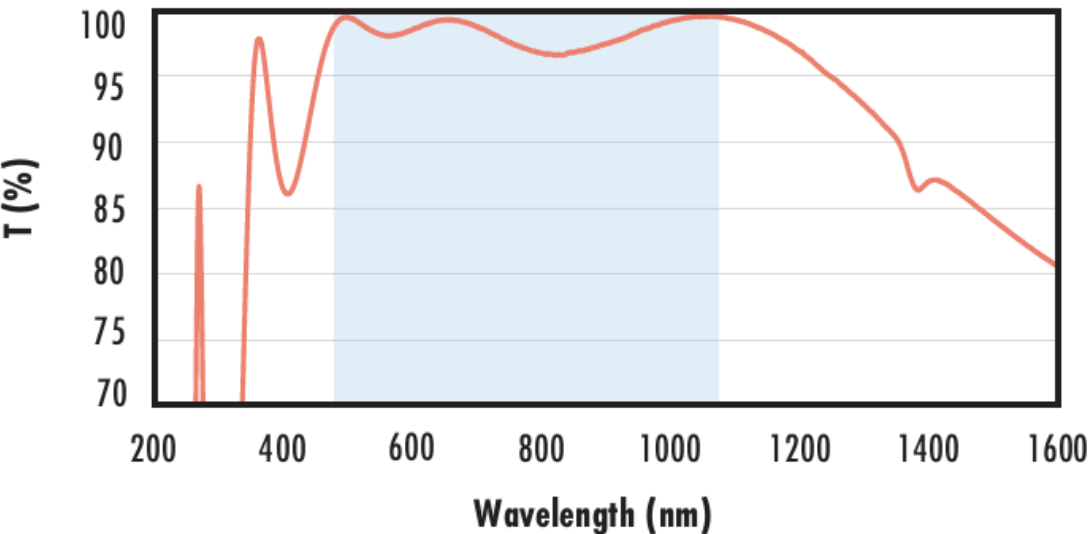
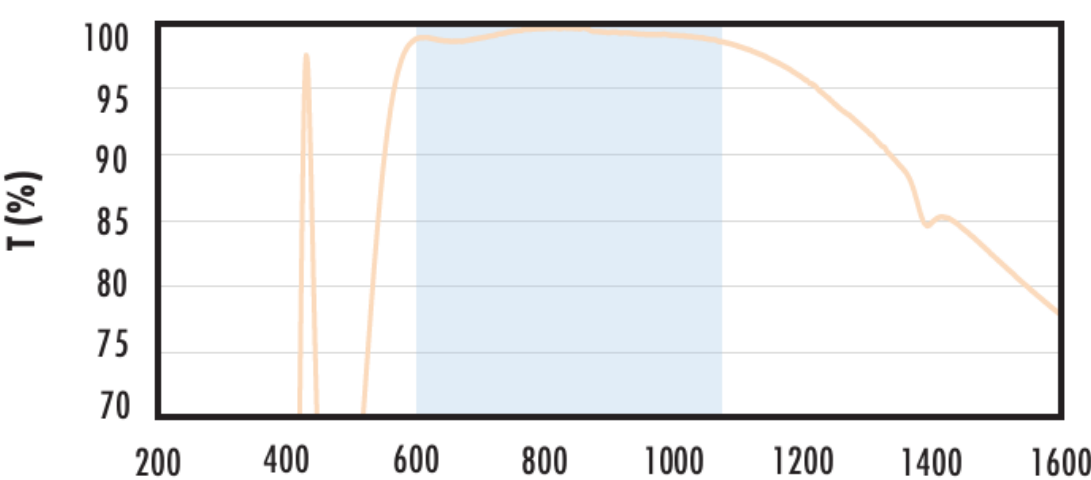
Typical transmission of a fused silica window with MS-EXT (350-700nm) coating at 0° AOI.

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.

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|                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p data-bbox="573 290 1089 397"><b>Fused Silica with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1333 439 1850 489">Typical transmission of a fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1333 501 1850 552">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 563 1715 638"><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> <p data-bbox="1341 673 1841 724">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 736 1709 759"><a href="#">Click Here to Download Data</a></p>      |
| <p data-bbox="573 958 1089 1065"><b>Fused Silica with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>     | <p data-bbox="1333 1142 1850 1193">Typical transmission of a fused silica window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1333 1205 1850 1255">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1474 1267 1705 1297"><math>R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}</math></div> <p data-bbox="1341 1308 1841 1359">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1371 1709 1394"><a href="#">Click Here to Download Data</a></p>                                                                                                                      |
| <p data-bbox="552 1629 1110 1736"><b>Fused Silica with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1333 1789 1850 1840">Typical transmission of a fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1333 1852 1850 1902">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1467 1914 1715 1988"><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> <p data-bbox="1341 2000 1841 2050">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 2062 1709 2086"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="594 2297 1068 2404"><b>Fused Silica with NIR I Coating</b><br/><b>Typical Transmission</b></p>     | <p data-bbox="1333 2487 1850 2537">Typical transmission of a fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1333 2549 1850 2599">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1474 2611 1705 2641"><math>R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}</math></div> <p data-bbox="1341 2653 1841 2703">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 2715 1709 2739"><a href="#">Click Here to Download Data</a></p>                                                                                                                   |

