

TECHSPEC®

4mm Dia x 12mm FL Uncoated, UV Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock **#70-888** **20+ In Stock**

-

1

+

£92<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | £92.00 each                   |
| Qty 6-25       | £74.00 each                   |
| Qty 26-49      | £69.60 each                   |
| Need More?     | <a href="#">Request Quote</a> |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

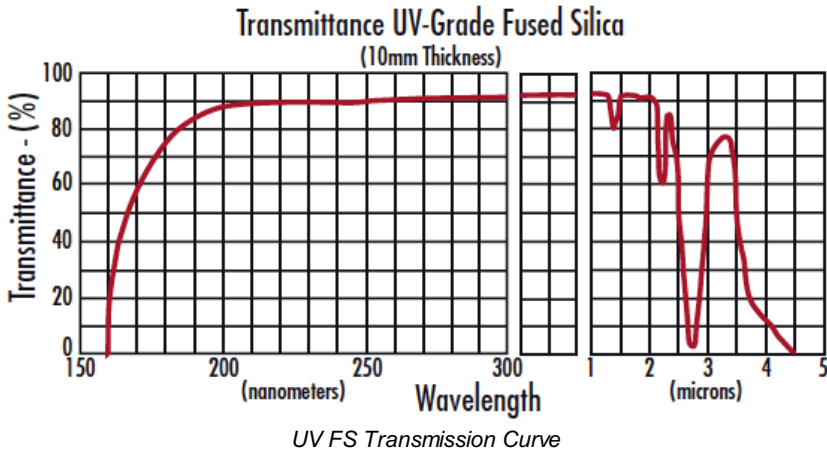
|                                  |                                     |       |
|----------------------------------|-------------------------------------|-------|
| Plano-Convex Lens                |                                     | Type: |
| Physical & Mechanical Properties |                                     |       |
| 4.00 +0.00/-0.025                | Diameter (mm):                      |       |
| <1                               | Centering (arcmin):                 |       |
| 1.40 ±.05                        | Center Thickness CT (mm):           |       |
| 1.02                             | Edge Thickness ET (mm):             |       |
| 3.6                              | Clear Aperture CA (mm):             |       |
| Protective as needed             | Bevel:                              |       |
| Optical Properties               |                                     |       |
| 12.00                            | Effective Focal Length EFL (mm):    |       |
| 11.04                            | Back Focal Length BFL (mm):         |       |
| Uncoated                         | Coating:                            |       |
| Fused Silica                     | Substrate: <input type="checkbox"/> |       |
| 20-10                            | Surface Quality:                    |       |
| 1.5λ                             | Power (P-V) @ 632.8nm:              |       |
| λ/4                              | Irregularity (P-V) @ 632.8nm:       |       |
| ±1                               | Focal Length Tolerance (%):         |       |
| 5.50                             | Radius R <sub>1</sub> (mm):         |       |
| 3                                | f/#:                                |       |
| 0.17                             | Numerical Aperture NA:              |       |
| 200 - 2200                       | Wavelength Range (nm):              |       |
| Regulatory Compliance            |                                     |       |
| View                             | Certificate of Conformance:         |       |

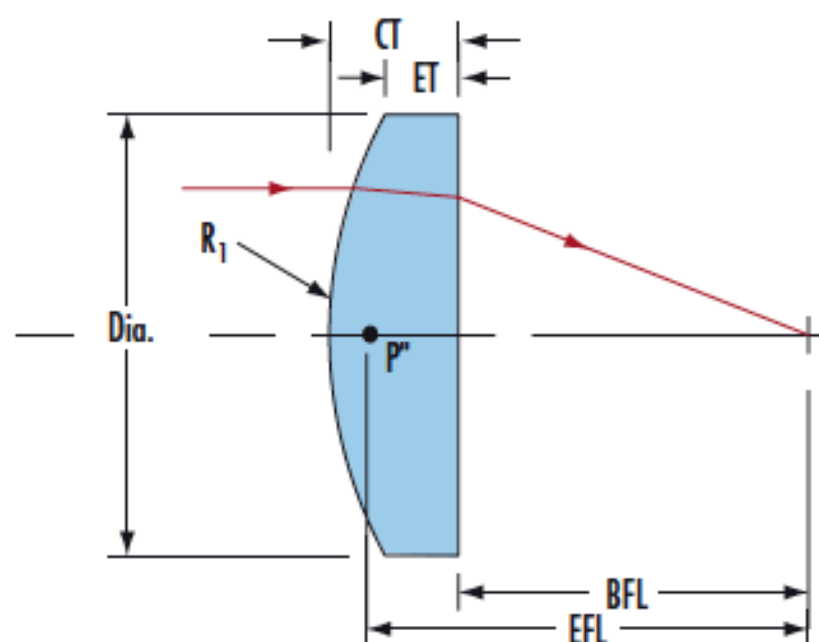
## PRODUCT DETAILS

- UV-Grade Fused Silica
- Wavelength Range of 200nm to 2.2μm
- Variety of Coating Options Available
- Various Coating Options: [MgF<sub>2</sub>](#), [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 Uncoated 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 Uncoated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications.

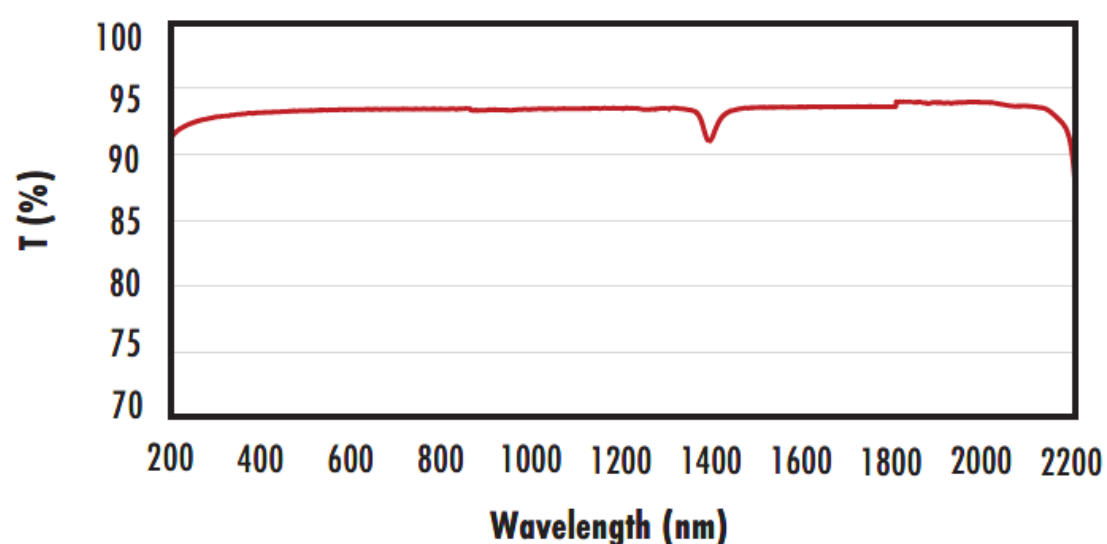
## TECHNICAL INFORMATION





## FUSED SILICA

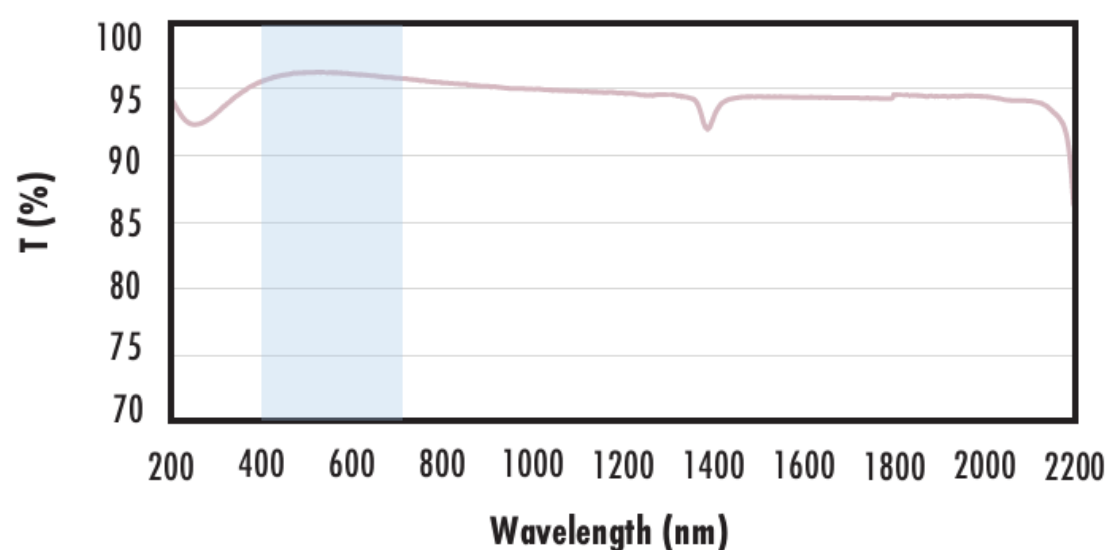
### Uncoated Fused Silica Typical Transmission



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

[Click Here to Download Data](#)

### Fused Silica with $\text{MgF}_2$ Coating Typical Transmission



Typical transmission of a 3mm thick fused silica window with  $\text{MgF}_2$  (400-700nm) coating at  $0^\circ$  AOI.

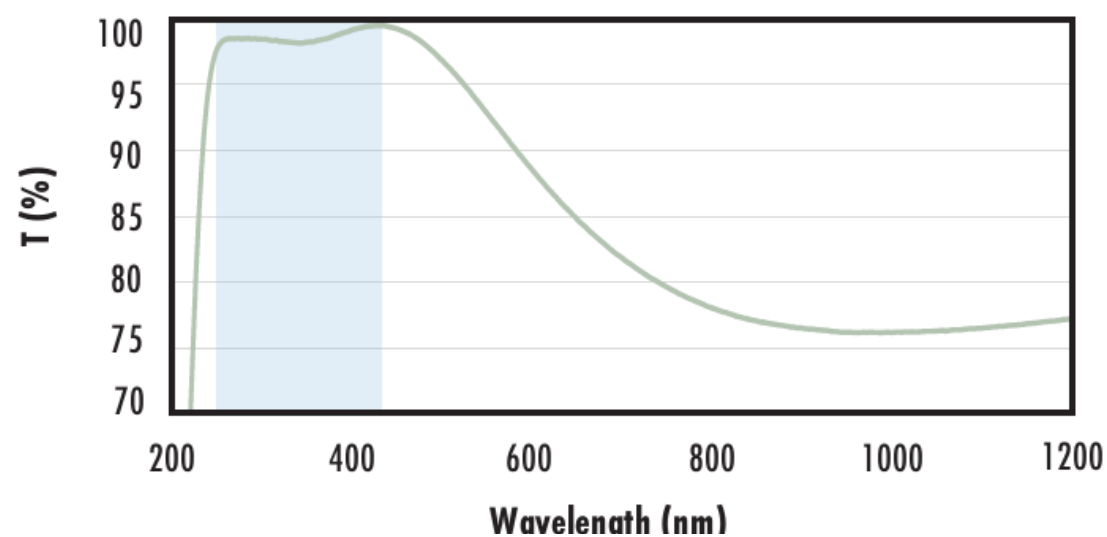
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 of a 3mm thick fused silica window with UV-AR (250-425nm) coating at  $0^\circ$  AOI.

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

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

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

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

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

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| Wavelength (nm) | Transmittance T (%) |
|-----------------|---------------------|
| 200             | ~0                  |
| 250             | ~97                 |
| 300             | ~98                 |
| 400             | ~99                 |
| 500             | ~98                 |
| 600             | ~100                |
| 700             | ~95                 |
| 800             | ~88                 |
| 900             | ~82                 |
| 1000            | ~79                 |
| 1100            | ~77                 |
| 1200            | ~77                 |

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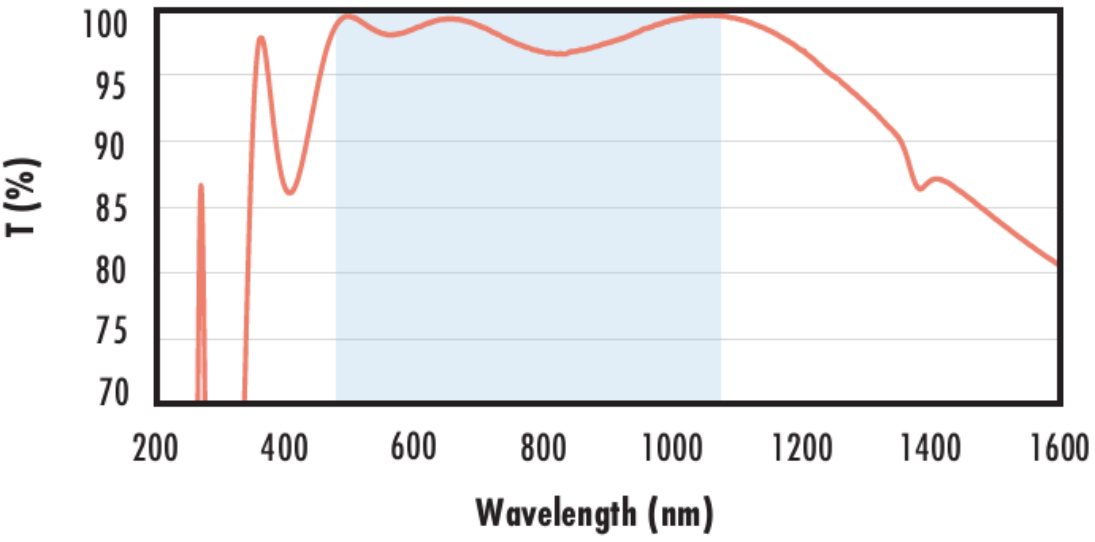
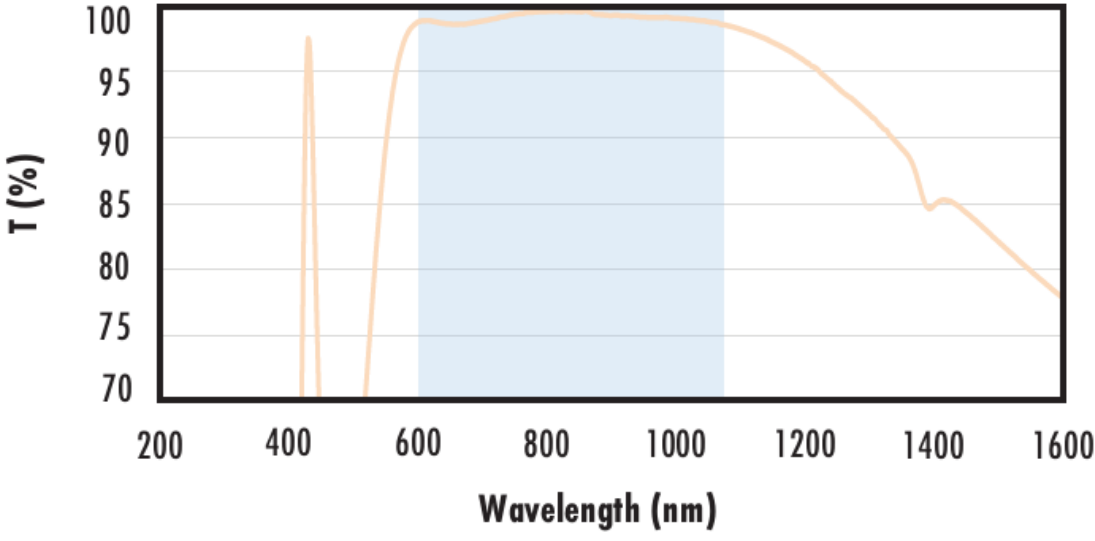
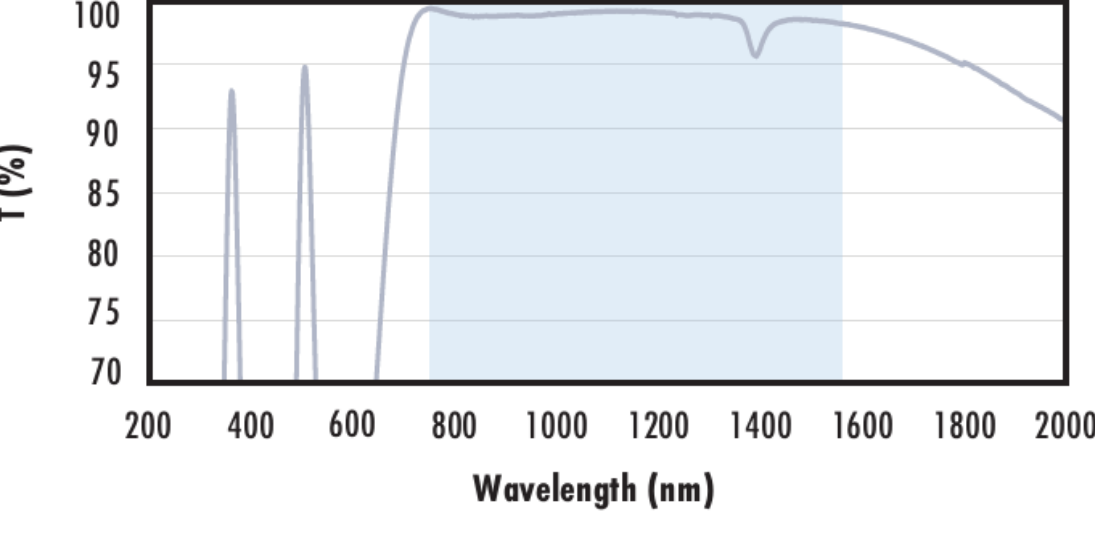
| Wavelength (nm) | Transmission T (%) |
|-----------------|--------------------|
| 300             | 70                 |
| 350             | 95                 |
| 400             | 99                 |
| 450             | 98                 |
| 500             | 99                 |
| 600             | 100                |
| 700             | 100                |
| 800             | 95                 |
| 900             | 88                 |
| 1000            | 82                 |
| 1100            | 78                 |
| 1200            | 75                 |

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### Fused Silica with YAG-BBAR Coating

|                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><h3>Typical Transmission</h3></div>                                        | <p>Typical transmission of a 3mm thick fused silica window with YAG-BBAR (500-1100nm) 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 0.25\%</math> @ 532nm<br/><math>R_{abs} \leq 0.25\%</math> @ 1064nm<br/><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</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><h3>Fused Silica with NIR I Coating<br/>Typical Transmission</h3></div>   | <p>Typical transmission of a 3mm thick fused silica window with NIR I (600 - 1050nm) 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 0.5\%</math> @ 600 - 1050nm</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><h3>Fused Silica with NIR II Coating<br/>Typical Transmission</h3></div> | <p>Typical transmission of a 3mm thick fused silica window with NIR II (750 - 1550nm) 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 1.5\%</math> @ 750 - 800nm<br/><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm<br/><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</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> |

## 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](#).