

TECHSPEC[®] 12mm Dia. x 18mm FL UV-VIS Coated, UV Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock **#48-814** 20+ In Stock

-

1

+

A\$259²⁰

ADD TO CART

Volume Pricing	
Qty 1-5	A\$259.20 each
Qty 6-25	A\$206.40 each
Qty 26-49	A\$195.20 each
Need More?	Request Quote

Product Downloads

General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

12.00 +0.0/-0.025

Diameter (mm):

<1	Centering (arcmin):
4.00 ±0.05	Center Thickness CT (mm):
1.41	Edge Thickness ET (mm):
11	Clear Aperture CA (mm):
Protective as needed	Bevel:
Optical Properties	
18.00 @ 587.6nm	Effective Focal Length EFL (mm):
15.26	Back Focal Length BFL (mm):
UV-VIS (250-700nm)	Coating:
R _{abs} ≤1.0% @ 350 - 450nm R _{avg} ≤1.5% @ 250 - 700nm	Coating Specification:
Fused Silica (Corning 7980)	Substrate: ☐
40-20	Surface Quality:
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
±1	Focal Length Tolerance (%):
8.25	Radius R ₁ (mm):
1.5	f/#:
0.33	Numerical Aperture NA:
250 - 700	Wavelength Range (nm):
3 J/cm² @ 355nm, 10ns 5 J/cm² @ 532nm, 10ns	Damage Threshold, Reference: ☐

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

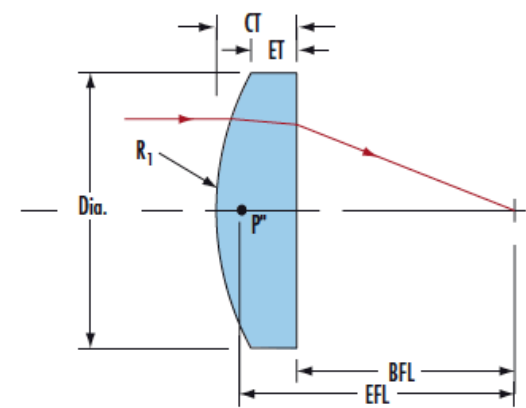
- AR Coated to Provide <1.5% Reflection per Surface for 250 - 700nm
- Precision Fused Silica Substrate
- Various Coating Options: [Uncoated](#), [MgF₂](#), [UV-AR](#), [VIS-EXT](#), [VIS-NIR](#), [VIS 0°](#), [YAG-BBAR](#), [NIR I](#), and [NIR II](#)

TECHSPEC® UV Fused Silica Plano-Convex (PCX) Lenses UV-VIS 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 UV-VIS Coated feature industry leading diameter and centration specifications, making them ideal for integration into demanding imaging and targeting applications. These lenses are UV-VIS coated to increase their coating performance in the ultraviolet and visible region.

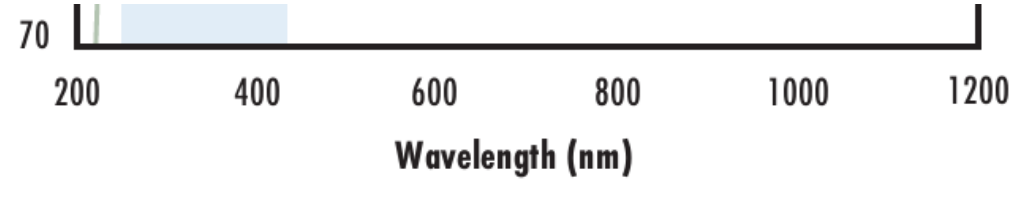
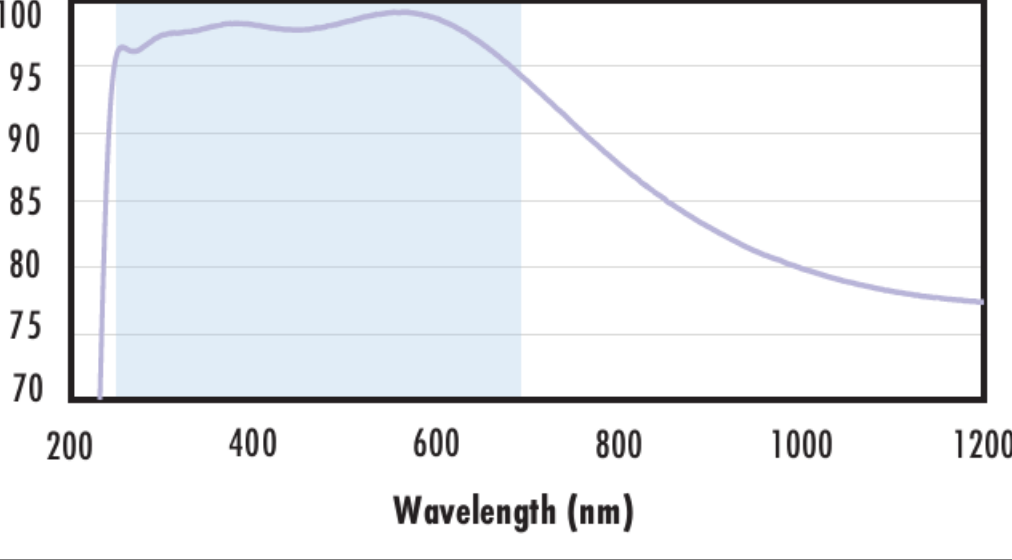
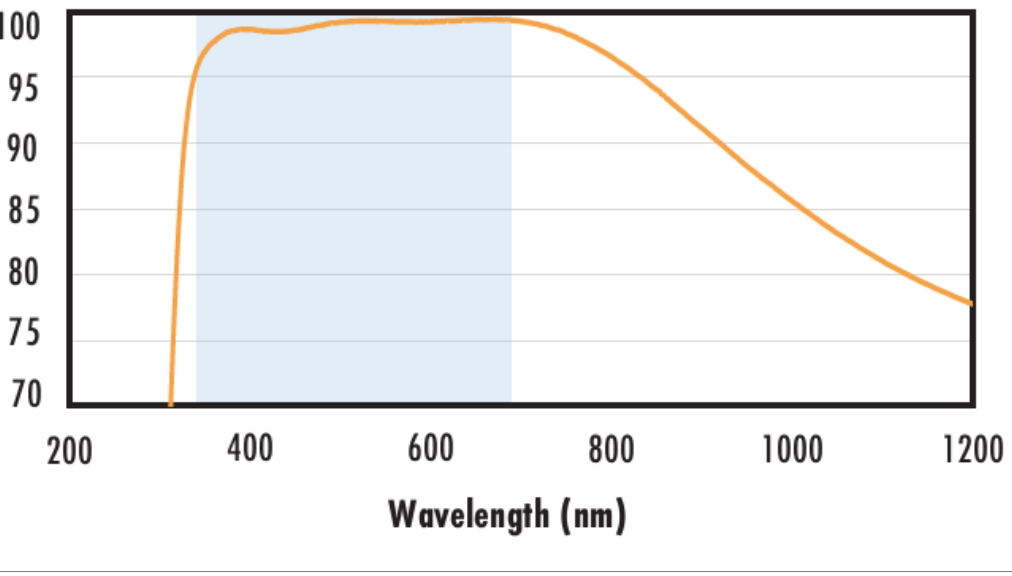
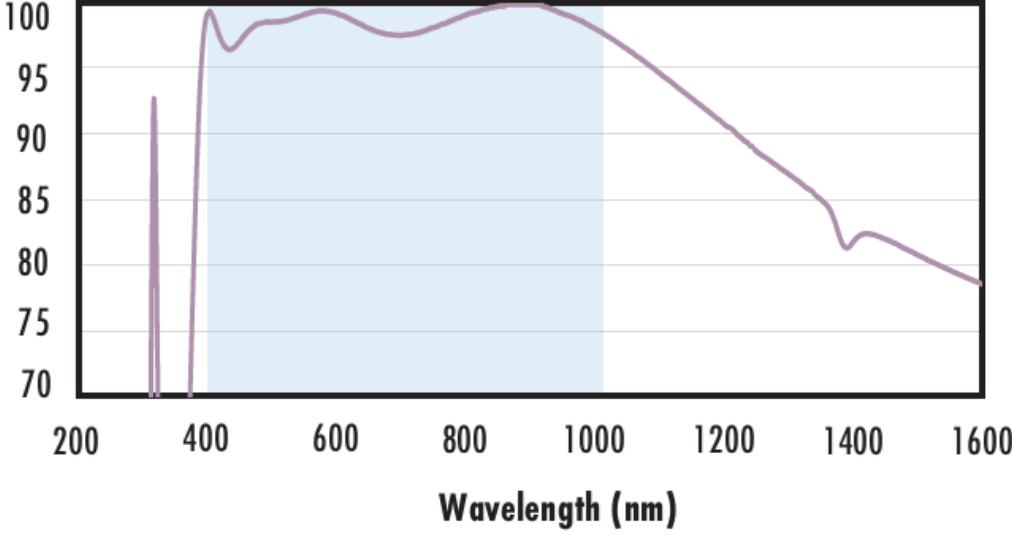
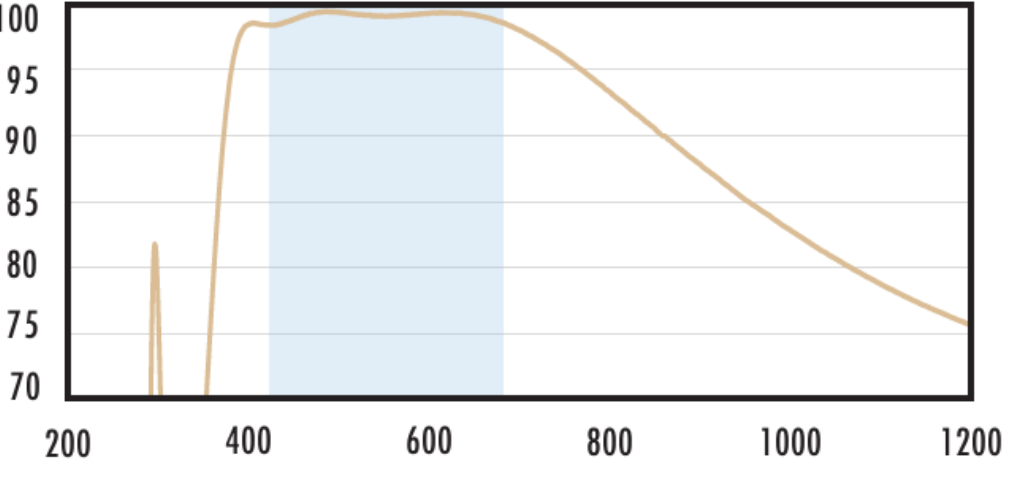
Technical Information



UV FS Transmission Curve



FUSED SILICA	
Uncoated Fused Silica Typical Transmission The graph shows transmission T (%) on the y-axis (70 to 100) versus wavelength in nm on the x-axis (200 to 2200). The transmission is high, starting around 92% at 200 nm, rising to a plateau of approximately 94% between 400 and 1400 nm, with a small dip at 1400 nm, and then dropping to about 90% at 2200 nm.	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 The graph shows transmission T (%) on the y-axis (70 to 100) versus wavelength in nm on the x-axis (200 to 2200). A blue shaded region indicates the coating design wavelength range from 400 to 700 nm. The transmission is around 94% in the UV, rises to a peak of about 97% in the blue shaded region, and then gradually decreases to about 90% at 2200 nm, with a small dip at 1400 nm.	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: $R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (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 The graph shows transmission T (%) on the y-axis (75 to 100) versus wavelength in nm on the x-axis (200 to 2200). A blue shaded region indicates the coating design wavelength range from 250 to 425 nm. The transmission is very high (near 100%) in the UV, remains high through the visible spectrum, and then drops significantly in the NIR region, reaching about 75% at 2200 nm.	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: $R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$ $R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$ $R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data

	
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\% \text{ @ } 350 - 450\text{nm}$$R_{avg} \leq 1.5\% \text{ @ } 250 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-EXT Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with VIS-EXT (350-700nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS-NIR Coating Typical Transmission 	Typical transmission of a 3mm thick fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI. The blue shaded region indicates the coating design wavelength range, with the following specification: $R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data
Fused Silica with VIS 0° Coating Typical Transmission 	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: $R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$ Data outside this range is not guaranteed and is for reference only. Click Here to Download Data

