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TECHSPEC[®] 12.0mm Dia. x -50 FL, UV-AR Coated, UV Plano-Concave Lens



UV Fused Silica Plano-Concave (PCV) Lenses



Stock **#48-053 2 In Stock**

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-

1

+

A\$251²⁰

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Volume Pricing	
Qty 1-5	A\$251.20 each
Qty 6-25	A\$201.60 each
Qty 26-49	A\$188.80 each
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General

Plano-Concave Lens

Type:

Max. Flat Annulus is 0.3mm

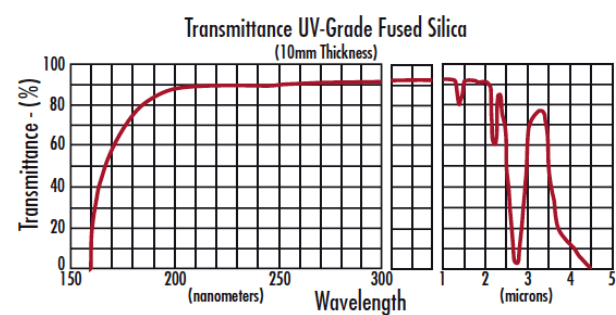
Note:

Physical & Mechanical Properties	
12.00 +0.0/-0.025	Diameter (mm):
2.00	Center Thickness CT (mm):
±0.05	Center Thickness Tolerance (mm):
<1	Centering (arcmin):
11	Clear Aperture CA (mm):
2.72	Edge Thickness ET (mm):
Optical Properties	
-50.00	Effective Focal Length EFL (mm):
Fused Silica (Corning 7980)	Substrate: ☐
4.17	f/#:
0.12	Numerical Aperture NA:
UV-AR (250-425nm)	Coating:
250 - 425	Wavelength Range (nm):
-51.37	Back Focal Length BFL (mm):
R _{abs} ≤1.0% @ 250 - 425nm R _{avg} ≤0.75% @ 250 - 425nm R _{avg} ≤0.5% @ 370 - 420nm	Coating Specification:
587.6	Focal Length Specification Wavelength (nm):
±1	Focal Length Tolerance (%):
-22.92	Radius R ₁ (mm):
40-20	Surface Quality:
3 J/cm ² @ 355nm, 10ns	Damage Threshold, Reference: ☐
1.5λ	Power (P-V) @ 632.8nm:
λ/4	Irregularity (P-V) @ 632.8nm:
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

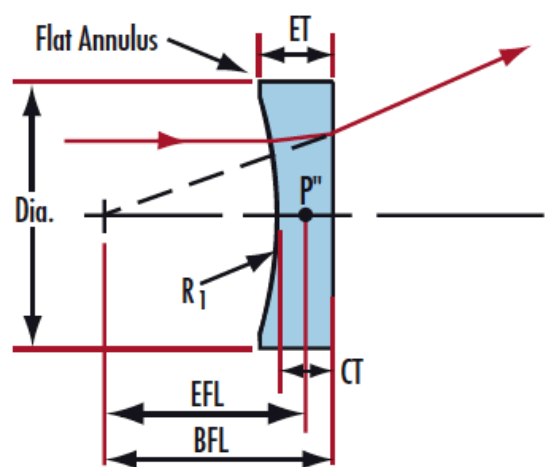
Product Details

- Negative Focal Lengths for Beam Expansion or Light Projection Applications
 - Wavelength Range of 200 - 2200nm
 - Popular UV-AR Coating Option Available
- TECHSPEC® UV Fused Silica Plano-Concave (PCV) Lenses are high performance UV optic elements, manufactured utilizing state of the art CNC equipment. Zygo's GPI-XP Interferometer is used to assure the surface accuracy and performance of these UV optics. UV Grade lenses are precision manufactured using research-grade synthetic fused silica. In addition to providing excellent transmission characteristics and higher operating temperatures, synthetic fused silica also exhibits an exceptional inclusion specification and chemical purity. TECHSPEC® UV Fused Silica Plano-Concave (PCV) Lenses are an ideal choice for many laser and imaging applications, particularly those involving ultraviolet wavelengths. A broadband anti-reflection coating is available for optimized throughput in the ultraviolet spectrum.

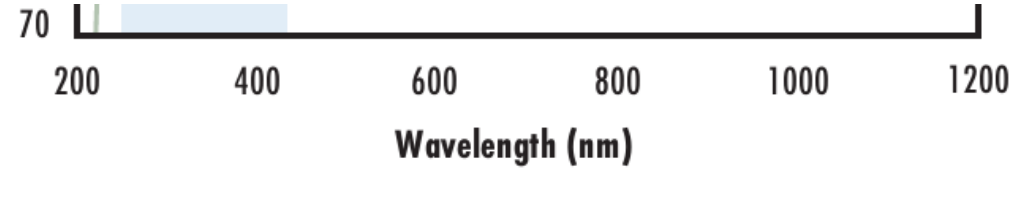
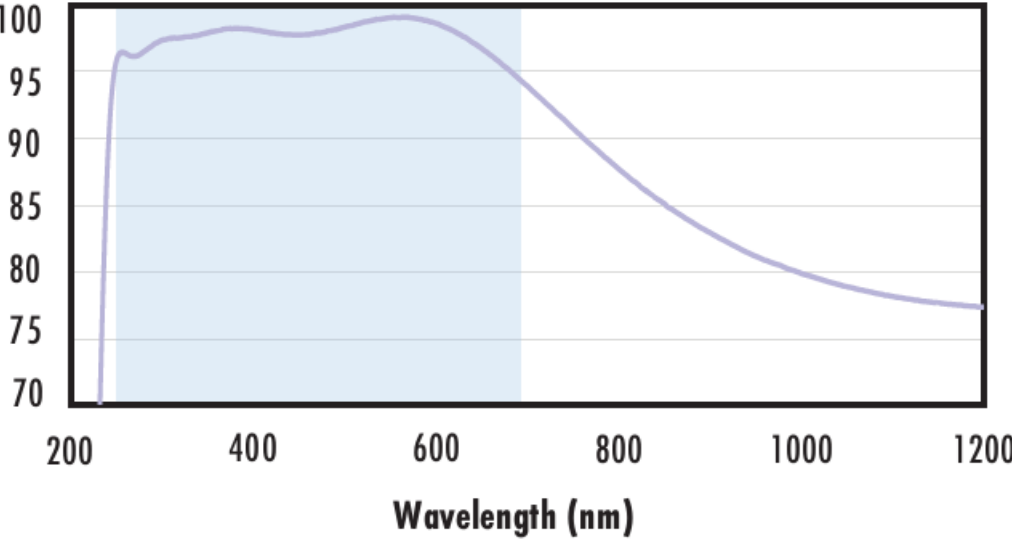
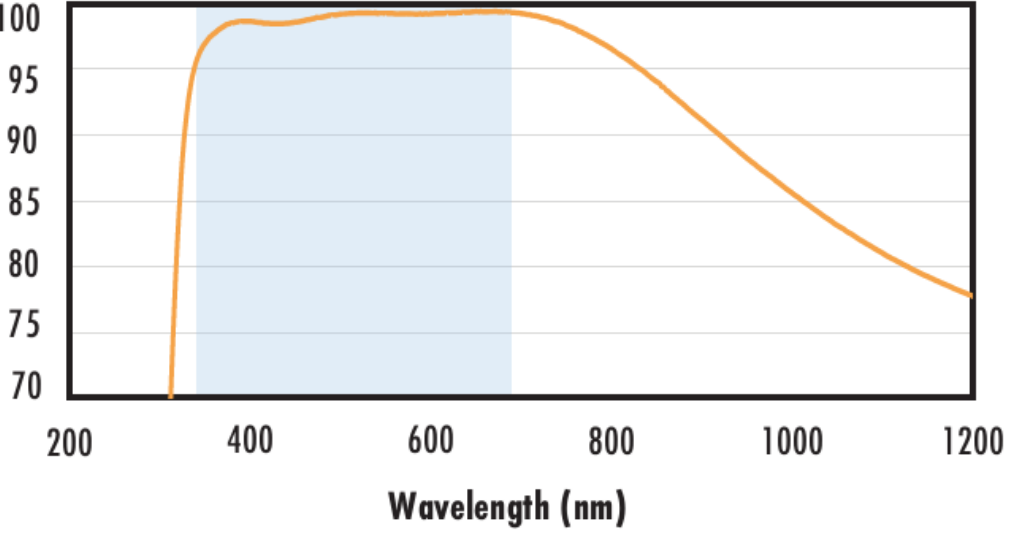
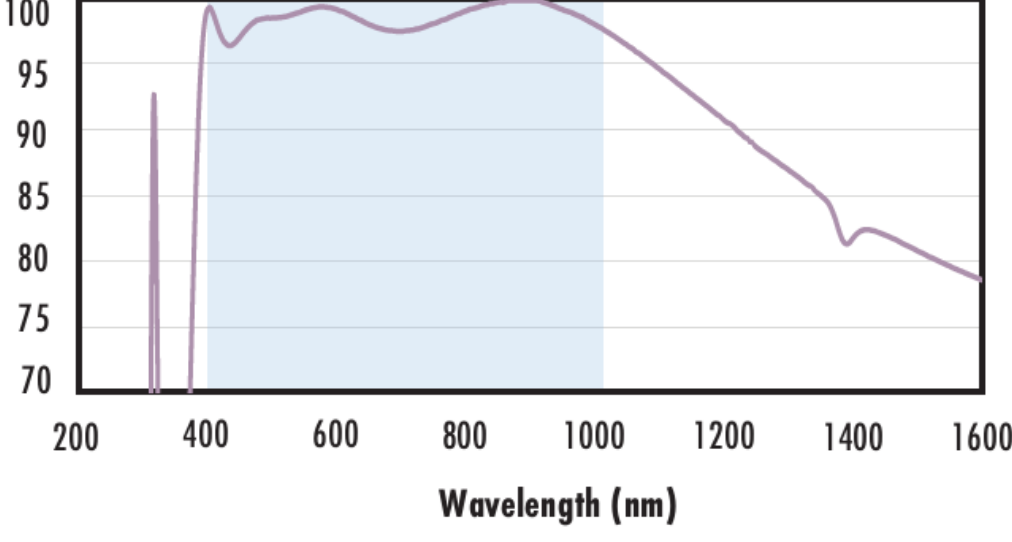
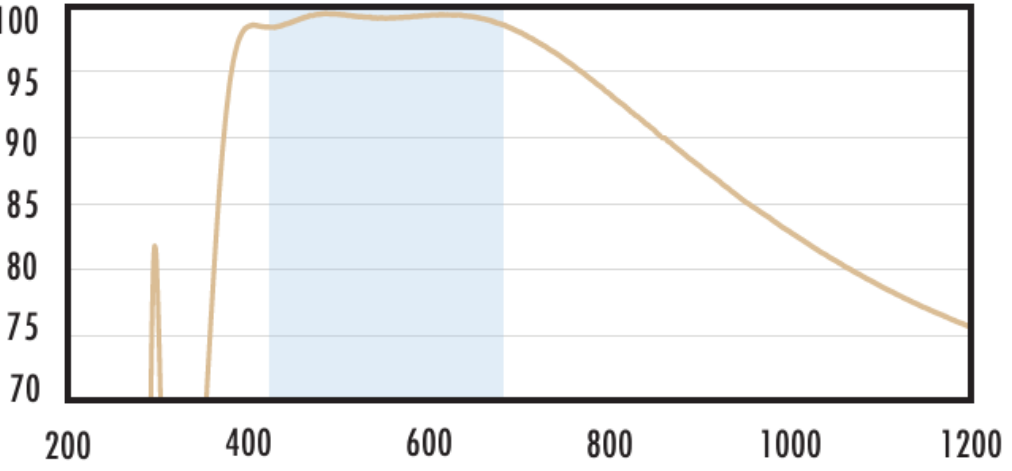
Technical Information



UV FS Transmission Curve



FUSED SILICA	
Uncoated Fused Silica Typical Transmission The graph shows the typical transmission of a 3mm thick, uncoated fused silica window. The y-axis is Transmittance T (%) from 70 to 100. The x-axis is Wavelength (nm) from 200 to 2200. The transmission is high, starting around 92% at 200 nm, rising to a plateau of about 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 the typical transmission of a 3mm thick fused silica window with MgF₂ (400-700nm) coating at 0° AOI. The y-axis is Transmittance T (%) from 70 to 100. The x-axis is Wavelength (nm) from 200 to 2200. The transmission is high, starting around 92% at 200 nm, rising to a plateau of about 96% between 400 and 1400 nm, with a small dip at 1400 nm, and then dropping to about 90% at 2200 nm. A blue shaded region indicates the coating design wavelength range from 400 to 700 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 the typical transmission of a 3mm thick fused silica window with UV-AR (250-425nm) coating at 0° AOI. The y-axis is Transmittance T (%) from 75 to 100. The x-axis is Wavelength (nm) from 200 to 2200. The transmission is high, starting around 92% at 200 nm, rising to a plateau of about 98% between 250 and 425 nm, with a small dip at 425 nm, and then dropping to about 75% at 2200 nm. A blue shaded region indicates the coating design wavelength range from 250 to 425 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

