

TECHSPEC[®] 20mm Dia. x 80mm FL, MgF₂ Coated, Plano-Convex Lens



UV Fused Silica Plano-Convex (PCX) Lenses



Stock #18-174

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+

S\$219⁻⁸⁰

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Volume Pricing	
Qty 1-5	S\$219.80 each
Qty 6-25	S\$175.00 each
Qty 26-49	S\$163.80 each
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General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

20.00 -0.025

<1	Centering (arcmin):
3.00 ±0.10	Center Thickness CT (mm):
1.61	Edge Thickness ET (mm):
19	Clear Aperture CA (mm):
Protective as needed	Bevel:

Optical Properties	
80.00 @ 587.6nm	Effective Focal Length EFL (mm):
77.95	Back Focal Length BFL (mm):
MgF ₂ (400-700nm)	Coating:
R _{avg} ≤1.75% @ 400 - 700nm	Coating Specification:
Fused Silica (Corning 7980)	Substrate: ☐
40-20	Surface Quality:
3 Rings	Power (P-V) @ 632.8nm:
0.5 Rings	Irregularity (P-V) @ 632.8nm:
±1	Focal Length Tolerance (%):
36.68	Radius R ₁ (mm):
4	f/#:
0.13	Numerical Aperture NA:
400 - 700	Wavelength Range (nm):
10 J/cm ² @ 532nm, 10ns	Damage Threshold, By Design: ☐

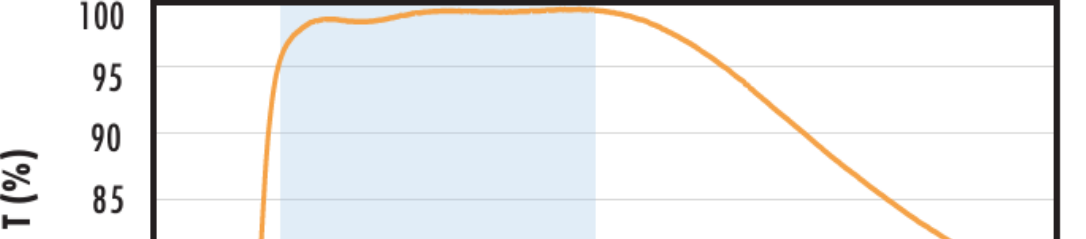
Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

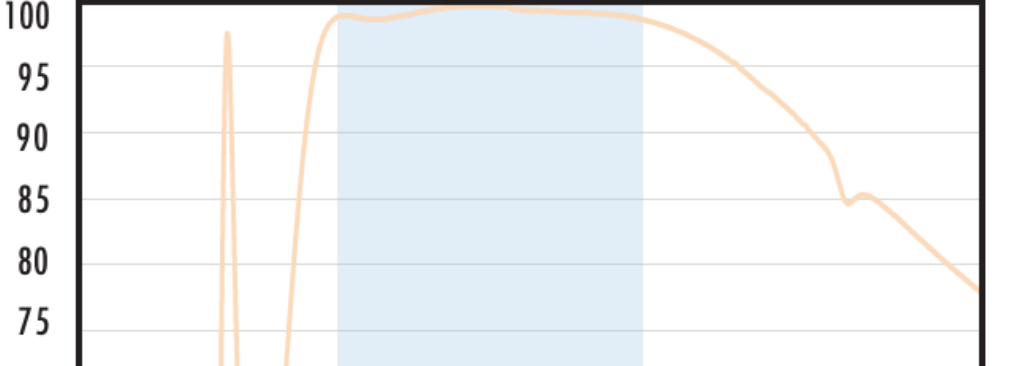
Product Details

- 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



	Typical transmission of an 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 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 	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: $R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$ $R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$ $R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$ 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 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: $R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$ $R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$ 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 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: $R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$ Data outside this range is not guaranteed and is for reference only.

	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 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. Click Here to Download Data
Fused Silica with VIS 0° Coating Typical Transmission 	Typical transmission of a 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. Click Here to Download Data
Fused Silica with YAG-BBAR Coating Typical Transmission 	Typical transmission of a 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 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. Click Here to Download Data

