

TECHSPEC[®] 50.8mm Diameter, NIR II Coated, Calcium Fluoride Window



TECHSPEC Calcium Fluoride (CaF2) Windows

Stock **#14-834** **5 In Stock**

-

1

+

€350⁰⁰

ADD TO CART

Volume Pricing	
Qty 1-10	€350,00 each
Qty 11-25	€309,00 each
Qty 26-49	€293,00 each
Need More?	Request Quote

 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Bevel:

Protective as needed

Clear Aperture (%):

90	
45.72	Clear Aperture CA (mm):
50.80 +0.0/-0.1	Diameter (mm):
3.00 ±0.1	Thickness (mm):
Fine Ground	Edges:
158.30	Knoop Hardness (kg/mm²):
<1	Parallelism (arcmin):
0.26	Poisson's Ratio:
75.8	Young's Modulus (GPa):

Optical Properties	
94.99	Abbe Number (v _d):
Random	Axis Orientation:
NIR II (750-1550nm)	Coating:
R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm	Coating Specification:
1.434	Index of Refraction (n _d):
Calcium Fluoride (CaF ₂) Vacuum UV Grade	Substrate:
λ/2	Surface Flatness (P-V):
40-20	Surface Quality:
750 - 1550	Wavelength Range (nm):
8 J/cm² @ 1064nm, 10ns	Damage Threshold, By Design: ☐

Material Properties	
18.85	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
3.18	Density (g/cm³):

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

Product Details

- Low Absorption, High Transmission UV Grade Calcium Fluoride
- Low Index of Refraction
- AR Coatings Spanning 250 - 5000nm Available
- Calcium Fluoride (CaF2) Wedged Windows also Available

TECHSPEC® Calcium Fluoride (CaF2) Windows offer a low index of refraction, providing high transmission from 200 - 7000nm when used uncoated. To further increase transmission and reduce back reflections, a variety of AR coatings are available spanning wavelength regions from the Ultra-Violet (UV) to the Mid-Wave Infrared (MMIR). The high bulk damage threshold of calcium fluoride coupled with its low absorption makes it a popular choice for use with laser systems, including excimer lasers. TECHSPEC® Calcium Fluoride (CaF2) Windows are ideal for use as protective windows for gas detectors operating in the Vacuum UV (VUV) and MMIR, UV spectroscopy systems, cryogenically cooled thermal imaging systems, and as substrates for coatings requiring wideband substrate transmission.

Note: Calcium fluoride is a relatively soft optical material and is more susceptible to scratches than typical glass windows.

Technical Information



Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our [Optics Cleaning Resources](#) for step-by-step guides and best practices. For personalized assistance, [Email us](#) or [Chat](#) with our technical support team.



Component Handling Tools

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](#).

Compatible Mounts