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TECHSPEC 50.8mm Dia. x 150mm FL, 3-12µm BBAR Coated, ZnSe Plano-Convex Lens

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TECHSPEC Zinc Selenide (ZnSe) Plano-Convex (PCX) Lenses

Stock **#11-433** CONTACT US

Other Coating Options

- 1 + **€1.460**,00

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Volume Pricing	
Qty 1-10	**€1.460,00** each
Qty 11-25	**€1.315,00** each
Qty 26-49	**€1.035,00** each
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Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:

Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

50.80 +0.00/-0.10

Centering, ETD (µm):
≤12.7

Center Thickness CT (mm):
4.00 ±0.10

Edge Thickness ET (mm):
2.46

Clear Aperture CA (mm):
45.72

Bevel:
Protective as needed

Surface Roughness (□):
<50 RMS

Optical Properties

Effective Focal Length EFL (mm):
150.00 @ 10.6µm

Back Focal Length BFL (mm):
148.34

Coating:
BBAR (3000-12000nm)

Coating Specification:
R_{avg} ≤3.0% @ 3 - 12µm

Substrate: □
Coherent® Infrared ZnSe

Surface Quality:
40-20

Power (P-V) @ 632.8nm:
λ

Irregularity (P-V) @ 10.6µm:
λ/20

Radius R_1 (mm):
210.40

f/#:
2.95

Numerical Aperture NA:
0.17

Wavelength Range (nm):
3000 - 12000

Bulk Absorption Coefficient (cm^1):
<0.0005 @ 10.6µm

Electrical

Power (P-V) @ 10.6µm:
λ/10

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 242:
Compliant

Product Details

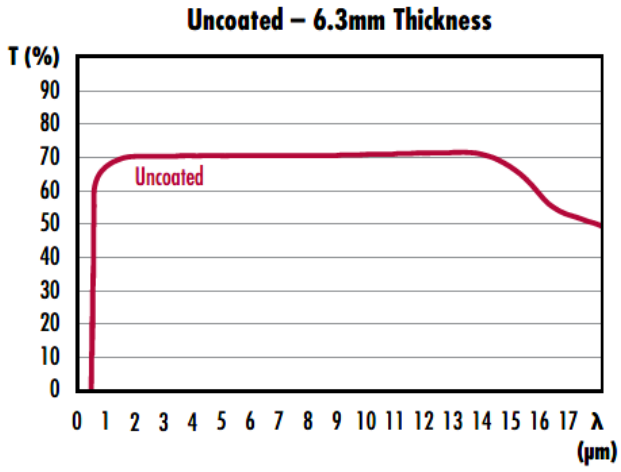
- Edmund Optics® Designed, Coherent® Manufactured
- Premier Grade ZnSe Material
- Uncoated or Broadband AR Coating Options

TECHSPEC® Zinc Selenide (ZnSe) Plano-Convex (PCX) Lenses are designed for focusing or collimation applications in the mid-wave and longwave infrared spectrum. Manufactured by Coherent®, these lenses feature Infrared ZnSe material with <0.0005cm^{-1} bulk absorption at 10.6µm and are available uncoated or with a variety of broadband anti-reflection coating options. The 8-12µm coating is ideal for use with CO_2 lasers and thermal camera applications, whereas the dual band 3-12µm coating is ideal for hyperspectral applications. TECHSPEC® Zinc Selenide PCX Lenses feature an irregularity of <λ/20 at 10.6µm, 40-20 surface quality, and <50Å surface roughness. Three diameter options are available, with effective focal lengths ranging from 12.7mm to 250mm.

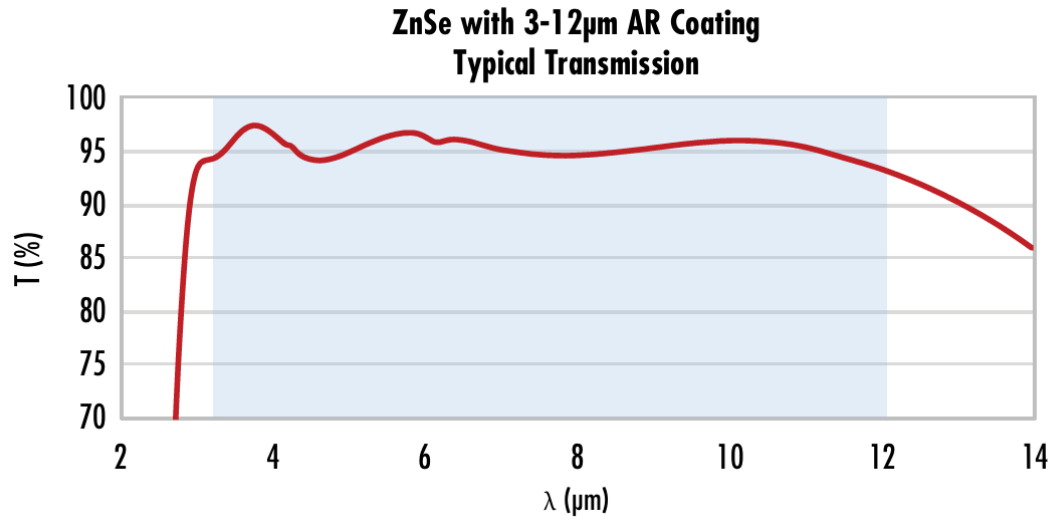
Notes: II-VI Incorporated is now Coherent Corp.

Special care should be taken when handling Zinc Selenide as it is a toxic material. Always wear rubber or plastic gloves to avoid risk of contamination.

Technical Information



AR COATED ZINC SELENIDE



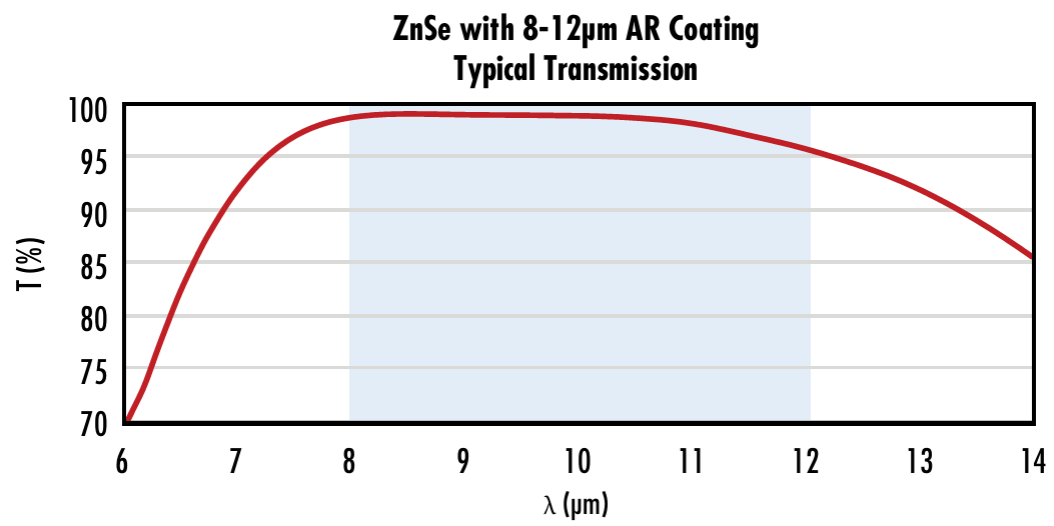
Typical transmission of a ZnSe window with BBAR (3000-12000nm) coating at 0° AOI.

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

R_{avg} <5.0% @ 3 - 12µm

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

Click Here to Download Data



Typical transmission of a ZnSe window with BBAR (8000-12000nm) coating at 0° AOI.

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

R_{avg} ≤0.5% @ 8 - 12µm

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

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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.

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