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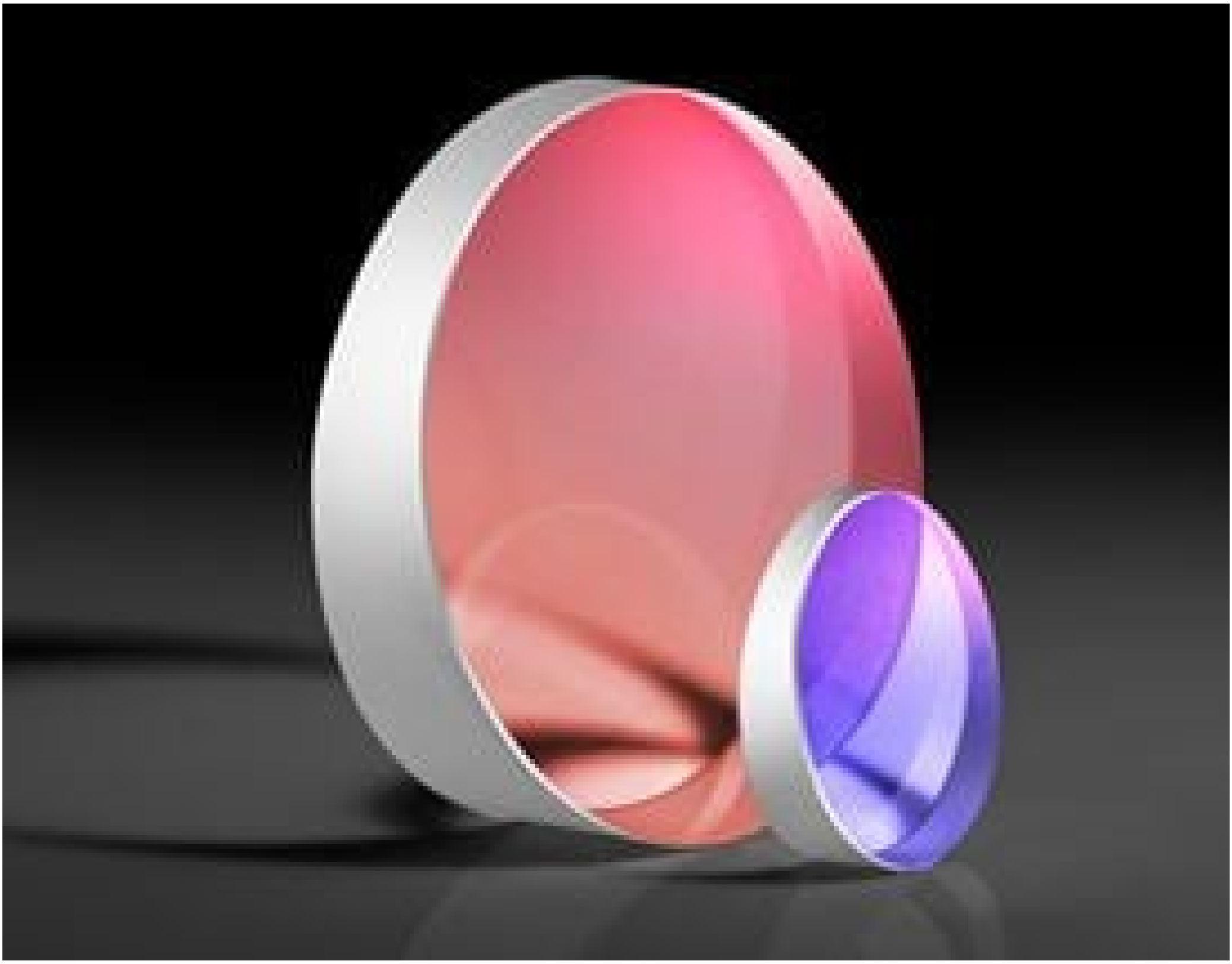
TECHSPEC 12.5mm Dia. 1° Beam Dev. Fused Silica Wedge Prism Uncoated



TECHSPEC Fused Silica Wedge Prisms

Stock **#35-843** **20+ In Stock**

- 1 + **A$206.40**

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Volume Pricing	
Qty 1-5	**A$206.40** each
Qty 6-25	**A$164.80** each
Qty 26-49	**A$154.40** each
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Product Downloads

General

Type:
Wedge Prism

Note:
Specify this is S1 & S2 power and irregularity, not the overall power of the wedge

Physical & Mechanical Properties

Diameter (mm):

12.50 +0.00/-0.10

Thickness (mm):

1.50

Bevel:

Protective as needed

Wedge Angle (arcmin):

2° 5'55"

Optical Properties

Angle Tolerance (arcsec):

30

Coating:

Uncoated

Design Wavelength DWL (nm):

355

Substrate:

Fused Silica (Corning 7980)

Surface Quality:

20-10

Image Orientation:

Beam Deviation

Wavelength Range (nm):

200 - 2200

Power (fringes) @ 632.8nm:

0.50

Irregularity (fringes) @ 632.8nm:

0.20

Ray Deviation @ 355nm (°):

1.00

Power (diopters):

1.74

Wedge Angle (°):

2.1°

Material Properties

Coefficient of Thermal Expansion CTE (10^{-6}/°C):

0.52

Regulatory Compliance

RoHS 2015:

Compliant

Reach 219:

Compliant

Certificate of Conformance:

View

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.

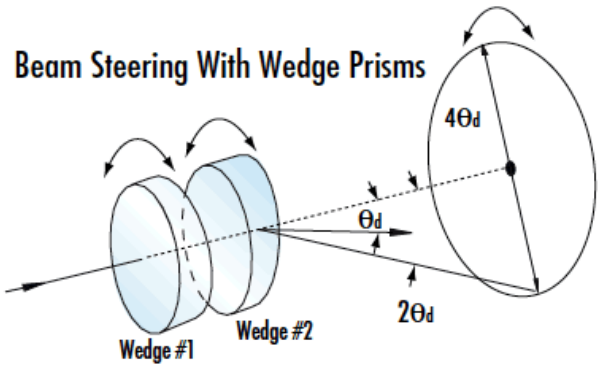
Product Details

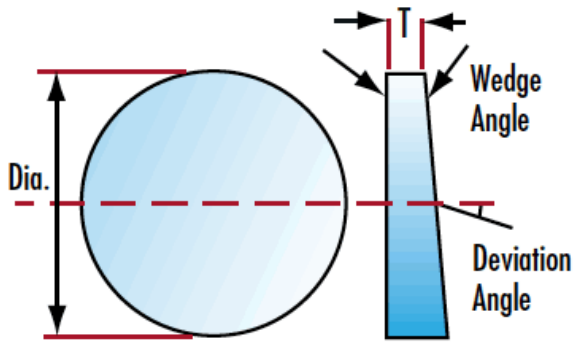
- Deviates Laser Beam Path from 0.5° - 5.0°
- Ideal for UV to NIR Beam Steering Applications from 250 to 1064nm
- Ideal for High Power Beam Steering Applications

TECHSPEC® Fused Silica Wedge Prisms are designed for a range of laser beam steering applications requiring UV-VIS or first through fourth Nd:YAG harmonic Anti-Reflection Coatings. They are optimized to ensure the highest level of system performance using tightly controlled specifications including λ/10 surface flatness, 20-10 surface quality, and a wedge tolerance of 15 or 30 arcseconds. The Nd:YAG coated versions feature high transmittance and guaranteed laser damage thresholds specific to the design wavelength. TECHSPEC® Fused Silica Wedge Prisms utilize a wedge design to deviate laser beam path from 0.5° – 5°. By creating a risley prism pair using two wedge prisms with the same ray deviation, custom beam steering up to two times the wedge deviation is possible. A low coefficient of thermal expansion ensures accurate beam steering in high power laser applications.

Note: Power Diopter is defined as 1cm deviation at a distance of 1m from the prism. TECHSPEC® Wedge Prisms are also available in N-BK7 versions.

Technical Information


Beam Steering With Wedge Prisms
4Θd
Θd
2Θd
Wedge #1
Wedge #2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Wedge
Angle
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