

TECHSPEC<sup>®</sup> 12.5mm Dia. 5° Beam Dev. Fused Silica Wedge Prism 1064nm Laser V-Coat



TECHSPEC Fused Silica Wedge Prisms

Stock **#39-129** **3 In Stock**

-

1

+

C\$232<sup>40</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | C\$232.40 each                |
| Qty 6-25       | C\$186.20 each                |
| Qty 26-49      | C\$173.60 each                |
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General

Note:

Specificy this is S1 & S2 power and irregularity, not the overall power of the wedge

Physical & Mechanical Properties

Diameter (mm):

12.50

Thickness (mm):

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| 1.50                                      |                                                              |
|                                           |                                                              |
| Protective as needed                      | Bevel:                                                       |
|                                           |                                                              |
| 10° 17'38"                                | Wedge Angle (arcmin):                                        |
|                                           |                                                              |
| Optical Properties                        |                                                              |
|                                           |                                                              |
| 30                                        | Angle Tolerance (arcsec):                                    |
|                                           |                                                              |
| Laser V-Coat (1064nm)                     | Coating:                                                     |
|                                           |                                                              |
| 1064                                      | Design Wavelength DWL (nm):                                  |
|                                           |                                                              |
| Fused Silica (Corning 7980)               | Substrate: <input type="checkbox"/>                          |
|                                           |                                                              |
| 20-10                                     | Surface Quality:                                             |
|                                           |                                                              |
| Beam Deviation                            | Image Orientation:                                           |
|                                           |                                                              |
| R <sub>abs</sub> <0.25% @ 1064nm          | Coating Specification:                                       |
|                                           |                                                              |
| 15 J/cm <sup>2</sup> @ 1064nm, 20ns, 20Hz | Damage Threshold, By Design: <input type="checkbox"/>        |
|                                           |                                                              |
| 0.50                                      | Power (fringes) @ 632.8nm:                                   |
|                                           |                                                              |
| 0.20                                      | Irregularity (fringes) @ 632.8nm:                            |
|                                           |                                                              |
| 5.00                                      | Ray Deviation @ 355nm (°):                                   |
|                                           |                                                              |
| 8.75                                      | Power (diopters):                                            |
|                                           |                                                              |
| 10.29°                                    | Wedge Angle (°):                                             |
|                                           |                                                              |
| Material Properties                       |                                                              |
|                                           |                                                              |
| 0.52                                      | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
|                                           |                                                              |
|                                           |                                                              |
| Regulatory Compliance                     |                                                              |
|                                           |                                                              |
| Compliant                                 | RoHS 2015:                                                   |
|                                           |                                                              |
| Compliant                                 | Reach 209:                                                   |
|                                           |                                                              |
| View                                      | Certificate of Conformance:                                  |
|                                           |                                                              |

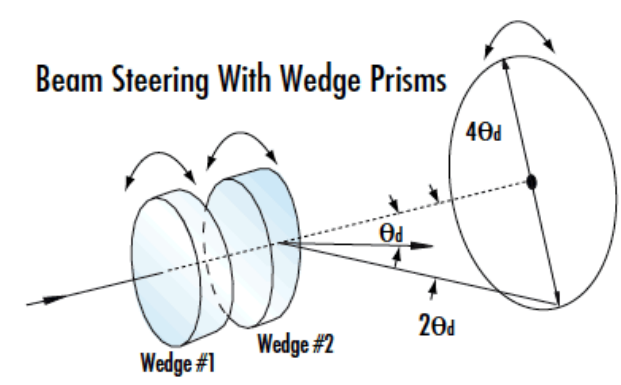
## Product Details

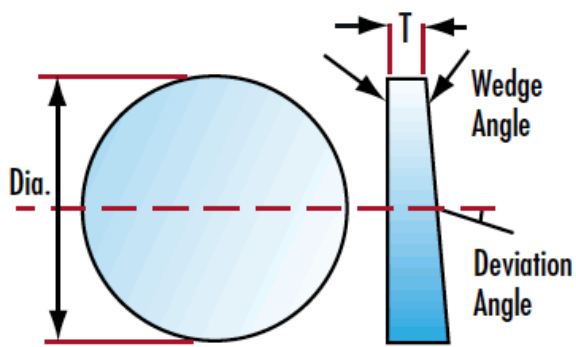
- Deviates Laser Beam Path from 0.5° - 5.0°
- Ideal for UV to NIR Beam Steering Applications from 250 to 1064nm
- Ideal for High Power Beam Steering Applications

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 *N*/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





## 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](#).

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