

TECHSPEC<sup>®</sup> 25mm Dia. 0.5° Beam Dev. Fused Silica Wedge Prism, UV-VIS Coated



TECHSPEC Fused Silica Wedge Prisms

Stock **#89-636** **12 In Stock**

-

1

+

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

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | <b>S\$232.40</b> each         |
| Qty 6-25       | <b>S\$186.20</b> each         |
| Qty 26-49      | <b>S\$173.60</b> each         |
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General

Wedge Prism

Type:

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

Physical & Mechanical Properties

Diameter (mm):

|                      |                       |
|----------------------|-----------------------|
| 25.00 +0.00/-0.10    |                       |
| 3.00                 | Thickness (mm):       |
|                      |                       |
| Protective as needed | Bevel:                |
|                      |                       |
| 1° 3'                | Wedge Angle (arcmin): |

Optical Properties

|                                                                              |                                     |
|------------------------------------------------------------------------------|-------------------------------------|
| 15                                                                           | Angle Tolerance (arcsec):           |
|                                                                              |                                     |
| UV-VIS (250-700nm)                                                           | Coating:                            |
|                                                                              |                                     |
| 355                                                                          | Design Wavelength DWL (nm):         |
|                                                                              |                                     |
| Fused Silica (Corning 7980)                                                  | Substrate: <input type="checkbox"/> |
|                                                                              |                                     |
| 20-10                                                                        | Surface Quality:                    |
|                                                                              |                                     |
| Beam Deviation                                                               | Image Orientation:                  |
|                                                                              |                                     |
| R <sub>abs</sub> ≤1.0% @ 350 - 450nm<br>R <sub>avg</sub> ≤1.5% @ 250 - 700nm | Coating Specification:              |
|                                                                              |                                     |
| 200 - 2200                                                                   | Wavelength Range (nm):              |
|                                                                              |                                     |
| 0.50                                                                         | Power (fringes) @ 632.8nm:          |
|                                                                              |                                     |
| 0.20                                                                         | Irregularity (fringes) @ 632.8nm:   |
|                                                                              |                                     |
| 0                                                                            | Angle of Incidence (°):             |
|                                                                              |                                     |
| 0.50                                                                         | Ray Deviation @ 355nm (°):          |
|                                                                              |                                     |
| 0.87                                                                         | Power (diopters):                   |
|                                                                              |                                     |
| 1.05°                                                                        | Wedge Angle (°):                    |

Material Properties

|      |                                                              |
|------|--------------------------------------------------------------|
| 0.52 | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
|------|--------------------------------------------------------------|

Regulatory Compliance

|           |                             |
|-----------|-----------------------------|
| Compliant | RoHS 2015:                  |
|           |                             |
| View      | Certificate of Conformance: |
|           |                             |
| Compliant | Reach 235:                  |

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

## Beam Steering With Wedge Prisms



## 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](#).