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TECHSPEC® 500 - 530nm, 12.7mm Dia., Ultrafast Mirror



Stock #17-551 **20+ In Stock**

- 1 + €204.⁰⁰

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Volume Pricing	
Qty 1-5	€204,00 each
Qty 6-9	€181,00 each
Qty 10+	€160,00 each
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! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Laser Mirror **Type:**

Typical Applications:
Yb:doped Lasers 2nd Harmonic

Note:
This optic can be used over an extended wavelength range of 480-550nm for S-polarized light.

Physical & Mechanical Properties

Parallelism (arcmin):

<3

Clear Aperture (%):

>90

Back Surface:

Commercial Polish

Diameter (mm):

12.70 +0.00/-0.10

Thickness (mm):

6.35 ±0.20

Optical Properties

Surface Quality:

20-10

Coating Specification:

$R_s > 99.75\%$ @ 500 - 530nm
 $R_p > 99.5\%$ @ 500 - 530nm

GDD Specification:

$0 \pm 20 \text{ fs}^2$ @ 500 - 530nm (s-pol & p-pol)

Wavelength Range (nm):

500 - 530

Surface Flatness (P-V):

$\lambda/8$

Coating Type:

Dielectric

Coating:

Ultrafast (480-550nm)

Design Wavelength DWL (nm):

515

Angle of Incidence (°):

45

Substrate:

[Fused Silica](#) (Corning 7980)

Damage Threshold, Reference:

0.17 J/cm² @ 515nm, 178fs, 1 pulse (typical)
0.15 J/cm² @ 515nm, 178fs, 10kHz, 1000 pulses (typical)
0.2 J/cm² @ 515 nm, 1 ps FWHM, 100 Hz, P-Polarization, 1000 pulses

Regulatory Compliance

Certificate of Conformance:

[View](#)

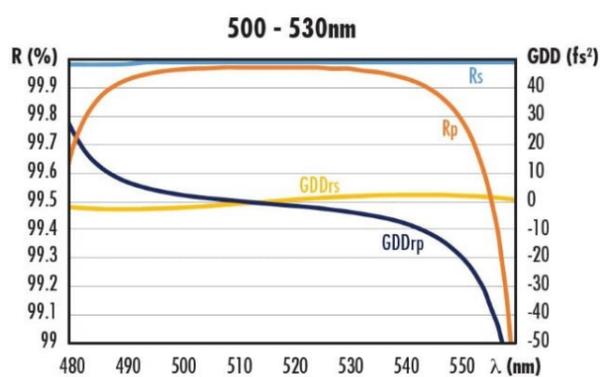
Product Details

- Designed with High Reflectivity for Ultrafast Beam Steering
- Ion-Beam Sputtered Coating for Low Scatter and Absorption
- GDD as Low as $0 \pm 20 \text{ fs}^2$ at Design Wavelength Range

TECHSPEC® High Performance Low GDD Ultrafast Mirrors are designed to have high reflectivity at 0° or 45° angles of incidence, making them ideal for ultrafast laser beam steering applications. These mirrors have a dispersion compensating coating obtained through a precision ion beam sputtering (IBS) process, providing lower scatter and absorption than traditional dielectric laser mirrors. TECHSPEC High Performance Low GDD Ultrafast Mirrors have a group delay dispersion (GDD) of near zero at their design wavelength range, minimizing dispersion of the reflected beam. Typical applications include use in the transport of femtosecond laser pulses.

Note: Please [contact us](#) if your application requires a TECHSPEC High Performance Low GDD Ultrafast Mirror with a custom wavelength, angle, or size.

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](#).

Compatible Mounts

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