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TECHSPEC®

800-1150nm, 50.8mm Dia. x 500mm EFL, Ultrafast-Enhanced Silver Concave Mirror



TECHSPEC® Ultrafast-Enhanced Silver Concave Laser Mirrors

Stock **#17-277** **1 In Stock**

1 **C\$386⁴⁰**

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Volume Pricing

Qty 1-5	C\$386.40 each
Qty 6-9	C\$343.00 each
Qty 10+	C\$303.80 each
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Product Downloads

General

Concave Mirror **Type:**

Physical & Mechanical Properties

50.80 +0.00/-0.2 **Diameter (mm):**

Clear Aperture (%):

>90

Edge Thickness ET (mm):

10 ±0.20

Optical Properties

Coating Type:

Ultrafast-Enhanced Silver

Coating:

Ultrafast-Enhanced Silver (800-1150nm)

Wavelength Range (nm):

800 - 1150

Effective Focal Length EFL (mm):

500.00

Substrate:

Fused Silica (Corning 7980)

Coating Specification:

$R_{avg} >99\%$ @ 850 - 1100nm, 0°

$R_s >99\%$ @ 800 - 1150nm, 45°

$R_p >98.5\%$ @ 850 - 1100nm, 45°

Surface Quality:

20-10

Damage Threshold, Reference:

0.35 J/cm² @ 1030nm, 200fs, 1 pulse (typical)

0.10 J/cm² @ 1030nm, 200fs, 100Hz, 1000 pulses (typical)

GDD Specification:

0 ±30 fs² @ 800 - 1150nm

Irregularity (P-V) @ 632.8nm:

0.15λ

Radius of Curvature (mm):

1,000.00

Power (P-V) @ 632.8nm:

2 Rings

Regulatory Compliance

Certificate of Conformance:

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Need different specs or modifications?

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

- Ideal for Focusing Ti:sapphire and Yb:doped Laser Pulses
- Reflectivity >99% at 600 – 1000nm or 800 – 1150nm
- Low Group Delay Dispersion as Low as 0 ±20fs²
- Effective Focal Lengths from 25 to 500mm
- **TECHSPEC® Ultrafast-Enhanced Silver Laser Mirrors** Available

TECHSPEC® Ultrafast-Enhanced Silver Concave Laser Mirrors feature silver coatings that are enhanced with a dielectric coating to provide increased reflectivity at 600 – 1000nm or 800 – 1150nm. These mirrors have an intrinsically low group delay dispersion (GDD) across their wavelength range, making them ideal for focusing or redirecting laser light from femtosecond lasers such as Ti:sapphire and Yb:doped lasers. Their broad wavelength range allows them to be used in applications that require a larger bandwidth than dielectric coated low GDD mirrors can provide. TECHSPEC® Ultrafast-Enhanced Silver Concave Laser Mirrors are available in standard imperial sizes and with effective focal lengths up to 500mm.

Note: TECHSPEC® Ultrafast-Enhanced Silver Concave Laser Mirrors can be designed with different wavelength ranges for other ultrafast laser types.

Technical Information



800-1150nm Ultrafast-Enhanced Silver

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