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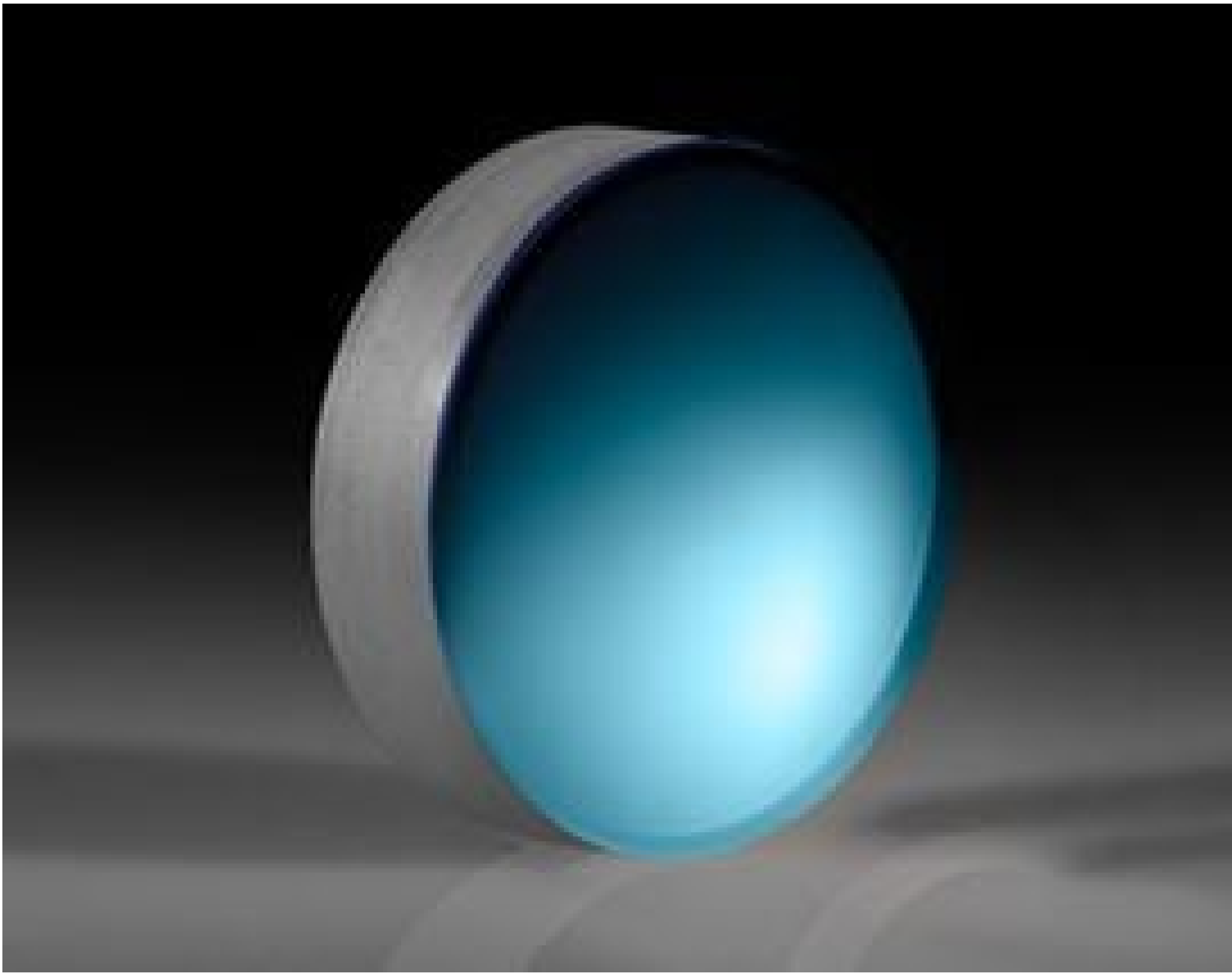
TECHSPEC® 600 - 1000nm, 50.8mm Dia. Ultrafast-Enhanced Silver, Silicon, Laser Mirror



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Product Downloads

General

Type:
Flat Mirror

Physical & Mechanical Properties

Parallelism (arcmin):
<3

Clear Aperture (%):
90

Back Surface:
Commercial Polish

Diameter (mm):
50.80 +0.00/-0.10

Thickness (mm):
9.53 ±0.10

Edges:
Ground, protective bevel as needed

Optical Properties

Surface Quality:
40-20

Coating Specification:
Ravg >99% @ 600 - 1000nm, 0° Rs >99% @ 540 - 1000nm, 45° Rp >98.5% @ ~730 - 870nm, 45°

GDD Specification:
0 ±20fs^2 @ 600 - 1050nm @ 0° AOI

Wavelength Range (nm):
600 - 1000

Surface Flatness (P-V):
λ/10

Coating Type:
Ultrafast-Enhanced Silver

Coating:
Ultrafast-Enhanced Silver (600-1000nm)

Substrate:
Optical Grade Silicon

Damage Threshold, Reference:
0.3 J/cm^2 @ 800nm, 48fs, 1 pulse (typical) 0.16 J/cm^2 @ 800nm, 48fs, 100Hz, 1000 pulses (typical)

Regulatory Compliance

Certificate of Conformance:
View

Product Details

- Silicon Substrate for Thermally Demanding Ultrafast Setups
- Ideal For Ti:Sapphire- and Yb-Based Ultrafast Laser Systems
- Designed For Ultrafast Pulse Reflection Where Low Dispersion is Critical
- < 30fs² GDD in Target Wavelength Ranges

TECHSPEC® Ultrafast-Enhanced Silver Coated Silicon Laser Mirrors combine a broadband enhanced-silver coating with low group delay dispersion (GDD) for ultrafast pulse applications. These mirrors are designed for systems where maintaining pulse fidelity is critical, and reflectivity and GDD are characterized across the specified wavelength range of 600 – 1000nm or 800 – 1150nm. These silicon substrate mirrors feature higher thermal conductivity than comparable **fused silica substrate mirrors**, which helps evenly distribute absorbed heat in thermally demanding optical setups. TECHSPEC® Ultrafast-Enhanced Silver Coated Silicon Laser Mirrors are ideal for broadband ultrafast beam delivery where high reflectivity, controlled dispersion, and a thermally robust substrate are desired.

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