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TECHSPEC® 400, 800nm, 50.8mm Dia., Ultrafast Dual Band Mirror

Stock **#24-323** **9 In Stock**

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General

Type:
Laser Mirror

Typical Applications:
Beam transport of 1st and 2nd harmonic of Ti:Sapphire lasers

Physical & Mechanical Properties

Thickness (mm):
9.53 ±0.10

Diameter (mm):
50.80 +0/-0.1

Clear Aperture (%):
>88

Back Surface:
Commercial Polish

Parallelism (arcmin):
<3

Optical Properties

Substrate:
Fused Silica (JGS1)

Surface Quality:
10-5

Angle of Incidence (°):
45

Coating:
IBS (385-415, 770-830nm)

Design Wavelength DWL (nm):
400, 800

Wavelength Range (nm):
385 - 415, 770 - 830

Surface Flatness (P-V):
λ/6

Coating Specification:
R_s>99.9% @385-415nm
R_p>99.8% @395-415nm
R_s>99.9% @770-830nm
R_p>99.9% @770-820nm

Coating Type:
S1: Dielectric
S2: Stress-compensating

GDD Specification:
<35fs^2 @ 385 - 415nm (s-pol)
<50fs^2 @ 395 - 415nm (p-pol)
<20fs^2 @ 770 - 830nm (s-pol)
<40fs^2 @ 770 - 810nm (p-pol)

Regulatory Compliance

Certificate of Conformance:
View

Product Details

- High Reflectivity & Low Group Delay Dispersion (GDD) for Ultrafast Beam Steering
- Ion-Beam Sputtered (IBS) Coatings Minimize Scatter and Absorption Losses
- Near-Zero GDD for Both the First and Second Harmonics of Ti:sapphire and Yb-doped Lasers

TECHSPEC® Dual Band Low GDD Ultrafast Mirrors maintain high reflectivity and near-zero group delay dispersion over both the first and second harmonic of Ti:sapphire and Yb-doped lasers. Utilizing Ion-Beam Sputtered Coating Technology, these mirrors minimize scatter and absorption loss commonly observed when using other traditional coating application processes. TECHSPEC® Dual Band Low GDD Ultrafast Mirrors are often used in beam steering applications as they will maintain ultrashort pulse durations that can be difficult to preserve when using more conventional laser mirrors. These mirrors are ideal for second-harmonic generation (SHG) microscopy and spectroscopy applications as well as for frequency resolved optical gating (FROG).

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