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TECHSPEC® Polarization Maintaining Mirror, 1064nm, 45° AOI, 50.8mm Dia., 9.53mm Thick



Polarization Phase Maintaining Mirrors

Stock **#26-873** **2 In Stock**

⊖ 1 ⊕ £357⁰⁰

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Volume Pricing	
Qty 1-5	£357.60 each
Qty 6-25	£286.08 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

Physical & Mechanical Properties

9.53 Thickness (mm):

50.80 Diameter (mm):

90 Clear Aperture (%):

Optical Properties

Fused Silica

Substrate: □

Angle of Incidence (°):
45

Coating:
Polarization Maintaining (1064nm)

Design Wavelength DWL (nm):
1064

Surface Flatness (P-V):
λ/8

Coating Specification:
R_{avg} S & P ≥ 99.90% @ 1064nm @ 45° AOI
R_{avg} ≥ 99 % @ 1000 – 1100nm @ 45° AOI
R_{avg} ≥ 80% @ 650nm @ 45° AOI

Regulatory Compliance

Certificate of Conformance:
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Product Details

- Preserves Incident Circular Polarization at 45° AOI
- Up To 99.9% Reflection at 532 or 1064nm, and 80% at 650nm for Alignment
- 12.7, 25.4, and 50.8mm Designs Available

TECHSPEC Polarization Maintaining Mirrors preserve circular polarization direction upon reflection at a 45° angle of incidence. Featuring a standard laser V-Coat of 532 or 1064nm, these mirrors achieve a high reflection of ≥99.9%. Additionally, these mirrors offer a ≥80% reflectivity at 650nm to facilitate system alignment. TECHSPEC Polarization Maintaining Mirrors feature fused silica substrates and are available in standard diameters of 12.7, 25.4, and 50.8mm. These mirrors are ideal for applications which utilize and require the preservation of circular polarization, such as laser machining and interferometry.

These polarization maintaining mirrors are especially well-suited for reflected beam paths in systems requiring critical polarization control. Their specialized dielectric coatings and surface quality help preserve the polarization state of incident light, supporting high-precision performance in applications such as interferometry, quantum optics, and polarization-sensitive laser systems. With high reflectivity across key wavelengths, they are ideal for free-space optical setups requiring consistent polarization alignment and beam fidelity.

Technical Information

Theory of Operation

