

Femtosecond Mirrors

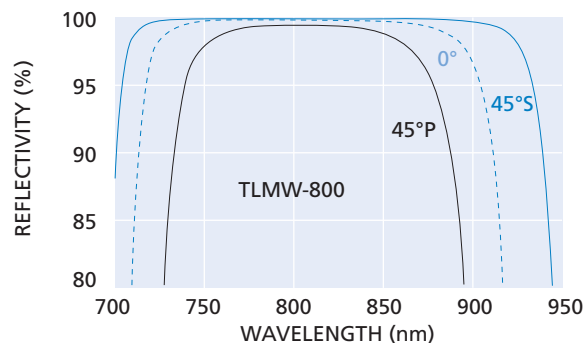
Broadband Ti:Sapphire Mirrors



Broadband Ti:Sapphire Mirrors

The TLMW mirrors was specially designed to achieve a wider bandwidth (720-900 nm) than our premier TLMB Ti:Sapphire mirror while maintaining high reflectivity, low dispersion and high damage threshold. These mirrors are designed for 800 nm Ti:Sapphire laser applications with pulse lengths as low as 15 femtoseconds.

- Broadband design (720-900 nm) with ultralow group delay dispersion (GDD)
- Ultrahard coatings with LDT 1 J/cm², 180 fsec @ 800 nm
- High reflectivity: 720-900 nm for 0° or 45° UNP
- Contact CVI Laser Optics for a range of custom options such as wavelength, curved substrates or very large large mirror options up to 0.5 meters (18" diameter)



Reflectivity vs wavelength of TLMW-800 broadband laser mirror showing 0° and 45° angle of incidence designs

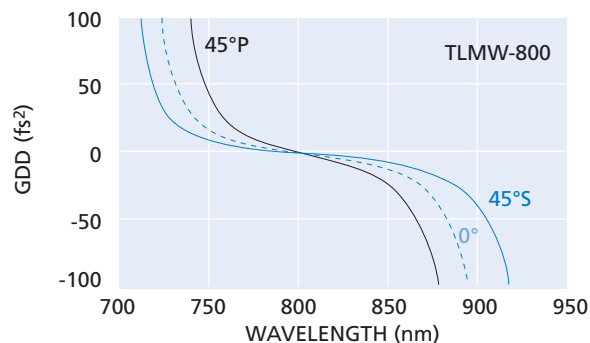
SPECIFICATIONS: Broadband Ti:Sapphire Mirrors

Substrate Material	N-BK7 glass
S1 Surface Figure	$\lambda/10$ @ 633 nm before coating
S1 Surface Quality	10-5 scratch and dig
S2 Surface Quality	Commercial polish
Diameter Tolerance	+0/ -0.25 mm
Thickness Tolerance	± 0.25 mm
Wedge	≤ 5 arc min
Chamfer	0.35 mm at 45° typical
Concentricity	≤ 0.05 mm
Radius Tolerance	$\pm 0.5\%$
Coating Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675C. Insoluble in lab solvents.
Clear Aperture	$\geq 85\%$ of central diameter
Reflectivity	$R > 99.0\%$ from 720-900 nm
Damage Threshold	Pulsed 1 J/cm ² , 180 fsec @ 800 nm
Coated Surface Figure	$\lambda/10$ @ 633 nm on select substrates
Bandwidth Tolerance	+0/ -10% typical
Center Wavelength Tolerance	$\pm 3\%$

From our Shelves to Your Lab –
Standard Products for Fast Delivery

Broadband Ti:Sapphire Mirrors

ϕ (mm)	t (mm)	Incidence Angle	PART NUMBER
25.4	6.4	0°	TLMW-800-0-1025
25.4	6.4	45°	TLMW-800-45-1025



Group delay dispersion vs wavelength of TLMW-800 broadband laser mirror showing 0° and 45° angle of incidence designs