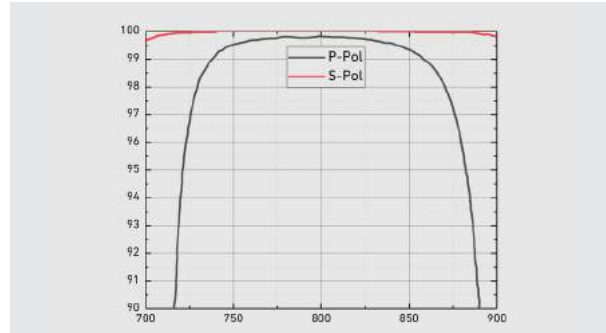




## Low GDD ultrafast mirrors



Low GDD Ultrafast mirrors are designed for high power ultrashort (femtosecond) laser pulse applications to provide both maximized high reflectivity and minimized low GDD value at the same time. Such coatings are used for internal and external beam manipulation applications where pulse broadening effect is undesirable.

Our Low GDD Ultrafast mirrors are intended for Ti:Sapphire, Nd:Glass or Ytterbium doped host based lasers working in femtosecond regimes.

### Main features

- Mirror substrates fabricated from high-quality UV grade fused silica
- Standard substrate dimensions are  $\varnothing 25,4 \times 5$  mm
- Coating stack is designed to have low dispersion (GDD) for the reflected wavelengths
- $0^\circ$  or  $45^\circ$  angle of incidence selection
- Custom coatings, substrate material and dimensions are available upon request

### Application examples

- High reflectivity mirrors for tunable and broadband ultrashort laser sources
- Broadband light beam steering and folding

### Standard specifications

LOW GDD ULTRAFAST MIRRORS	
Substrate material	UV grade fused silica
Clear aperture	>85%
Face dimensions tolerance	+0/-0,15 mm
Thickness tolerance	$\pm 0,25$ mm
Parallelism error	<30 arcsec
Protective chamfers	<0,35 mm at $45^\circ$
Surface quality	20-10 S-D
Surface flatness	< $\lambda/8$ @632,8 nm
Laser induced damage threshold	>2 J/cm <sup>2</sup> @800 nm, 200 ns (for 730-870 nm mirrors)

## Standard products

MATERIAL	GROUP DELAY DISPERSION	CLEAR APERTURE	THICKNESS TOLERANCE	SURFACE QUALITY	FACE DIMENSIONS	PROTECTIVE CHAMFERS	THICKNESS	COATING S1	SKU	PRICE
UVFS	<100 fs <sup>2</sup> @ 750-850nm	90%	±0.2 mm	20-10 S-D	ø50,8 mm	<0,5 mm at 45°	6,35 mm	HR(Rs>99,5%@710-890 nm; Rp>98,5%@740-860 nm)	18689	145 €
								HR(R>99,5%@730-870 nm)	18796	145 €
					ø25,4 mm	<0,25 mm at 45°	5 mm	HR(R>99,5%@730-870 nm)	28437	76 €
								HR(Rs>99,5%@710-890 nm; Rp>98,5%@740-860 nm)	9531	76 €