



UV-Aspheres for high-power laser applications

asphericon GmbH

asphericon StockOptics

HIGH-PRECISION OFF-THE-SHELF OPTICS - INNOVATIVE DIVERSITY & PRECISION



a|Aspheres

Low-NA & High-NA

- = Diameter: 10-100 mm
- = Quality: RMS < 0.5 μm

UV-Aspheres

- = Diameter: 12.5 – 50 mm
- = Quality: up to RMS < 0.02 μm

a|Axicons

- = For high-power laser applications
- = Diameter: 25.4 and 50.8 mm
- = Quality: RMS < 0.07 μm
- = Material: Fused silica
- = Available with 4 standard coatings

a|Acylinders

- = Ideal line-focus
- = Size: 10x10 – 50x50 mm
- = Quality: RMS < 0.5 μm
- = Material: S-LAH64
- = Available with 4 standard coatings

MountedOptics

- = Pre-aligned aspheres, axicons and acylinders in high-precision mounts
- = Diameter: 12.5 - 25.4
- = Quality: < 10 μm decentration
- = Material: S-LAH64, N-BK7, Fused silica

What's new?

FUSED SILICA REVOLUTION



A photograph of two men in a modern office environment. They are standing behind several computer monitors. The man on the left is wearing a dark blue shirt and has a beard. The man on the right is wearing a light blue button-down shirt. They are both looking at the monitors with interest. The monitors display 3D CAD models of camera lenses. The background shows a whiteboard with various diagrams and notes, a bookshelf, and a green watering can on a desk. The overall lighting is soft and professional.

#1 Sophisticated Design

Optimized Design


- = New design wavelength $\lambda_{\text{Design}} = 355 \text{ nm}$ (until now: 285 nm)
- = Extra long focal lengths
 - = 25-75 // 25-100
 - = 50-100
- = Best application fit:
 - = Ultra-short laser pulses
 - = Laser material processing
 - = Low dispersion
 - = Low thermal expansion



#2 Quality Levels

Quality levels & Largest choice

ULTRA PRECISE FOR HIGHEST DEMANDS

	PRECISION 	ULTRA 	BEAMTUNING 
Surface Form Deviation (RMS _s)	≤ 0.5 μm	≤ 0.3 μm	≤ 0.02 μm
Wavefront RMS	≤ 235 nm	≤ 140 nm	≤ 10 nm
Dia-EFL	16 lenses 12.5/25/50 x 10-100 mm	16 lenses 12.5/25/50 x 10-100 mm	3 lenses 25 x 50/75/100 mm
Surface Roughness	–	–	≤ 0.5 nm
Selected UV-ASPHERES available as MOUNTED OPTION			

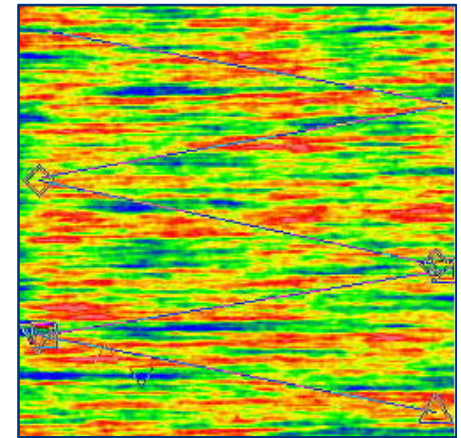


#3 Lowest Roughness for minimized Scattering

BeamTuning quality for lowest roughness

ULTRA PRECISE FOR HIGHEST DEMANDS

- = Superior optical design & high-end manufacturing technologies
 - = Diffraction-limited design
 - = High-end finishing for lowest roughness values
- = Minimized scattering allows superior laser applications
 - = High-power laser
 - = Ultrashort puls laser
- = Perfect combination with BeamTuning equipment will boost your lab applications





#4 High-end Coatings

NEW: V-Coating // Broadband coating



Broadband Coating

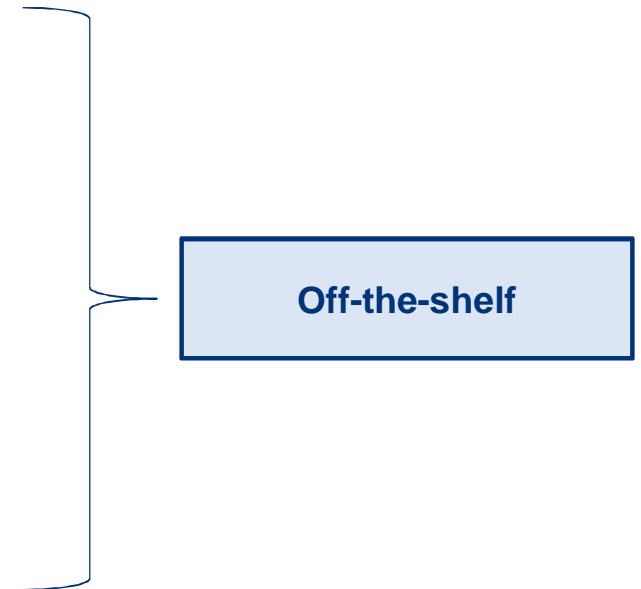
= 240 - 380 nm
= 400 - 600 nm

= 600 - 1050 nm
= 1000 - 1600 nm



V-Coating

= 355 nm
= 532 nm
= 1064 nm



Mounted Aspheres

- = Perfect alignment (<10 μm decentration)
- = Modularity & high compability (adapters)
- = Easy handling
- = Off-the-shelf



Summary



Largest Selection of UV-Aspheres



From Value Champion to Industry Benchmark



Lowest Roughness for high-end Laser Applications



V-Coatings & Mountings off-the-shelf



Shop online!

<https://www.asphericon.com/shop/>

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