



α|UV-grade fused silica

UV-grade fused silica lenses are available in three diameters (12.5, 25, 50 mm) and are optimized for multiple applications, as prototypes in test devices or as standard component for beam-focusing or collimating. They are also obtainable with high-precision mountings.

Key Benefits:

- Outstanding surface form deviation of $RMS_i \leq 0.3 \mu\text{m}$
- Suitable for high-power laser applications
- Available with 4 standard coatings
- Laser induced damage threshold:
12 J/cm², 100 Hz, 6 ns, 532 nm
- Off-the-shelf delivery
- RoHS compliance

Lens Description

Surface Form Deviation (RMS) ¹	[μm]	≤ 0.3
EFL Tolerance	[%]	≤ 0.1
Surface Quality	[Scratch-Dig]	20-20
Diameter Tolerance	[mm]	+0/-0.05
Center Thickness Toleranc	[mm]	± 0.05
Clear Aperture	[%]	≥ 90

AR-Coatings²

A: $R_{\text{MAX}} < 1.0\%$, $R_{\text{AVG}} \leq 0.4\%$, 400-600nm, AOI=0°

B: $R_{\text{MAX}} < 1.0\%$, $R_{\text{AVG}} \leq 0.4\%$, 600-1050nm, AOI=0°

C: $R_{\text{MAX}} < 1.0\%$, $R_{\text{AVG}} \leq 0.4\%$, 1000-1600nm, AOI=0°



Product Code	Ø	EFL	NA	f/d	WD	Material
	[mm]	[mm]			[mm]	
AFL12-15	12.5	15	0.39	1.2	12.3	Fused Silica
AFL12-20	12.5	20	0.29	1.6	17.3	Fused Silica
AFL25-25	25	25	0.48	1.0	17.0	Fused Silica
AFL25-30	25	30	0.39	1.2	23.3	Fused Silica
AFL25-40	25	40	0.29	1.6	34.6	Fused Silica
AFL50-60	50	60	0.39	1.2	48.3	Fused Silica
AFL50-80	50	80	0.29	1.6	70.6	Fused Silica

1. RMSi corresponds to ISO 10110-5 (surface form tolerances).

2. For lenses AFL50-60, AFL50-80, please consider a center thickness tolerance of ± 0.1 .

3. Custom coatings available upon request.

4. Typically used J-Fiber SQ 1 or equivalent corning 7980 quality.

