

## a|FusedSilica

Fused silica lenses are available in three quality levels and optimized for multiple applications, as prototypes in test devices or as OEM-applications for beam-focusing or collimating. A selection of diameters is also obtainable with high-precision mountings.

### Key Benefits:

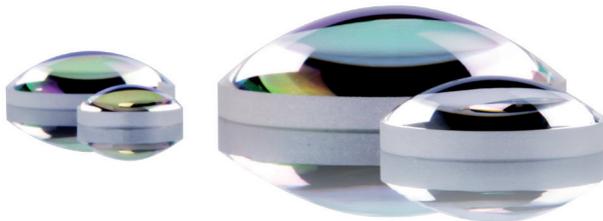
- = Outstanding surface form deviation (quality levels: Precision, Ultra and BeamTuning)
- = Suitable for high-power laser applications & off-the-shelf delivery
- = Laser induced damage threshold: 12 J/cm<sup>2</sup>, 100 Hz, 6 ns, 532 nm
- = RoHS compliance
- = Available with 15 standard coatings<sup>1</sup>:

### AR-Coatings<sup>1</sup>:

- A:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 400-600 nm, AOI=0°
- B:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 600-1050 nm, AOI=0°
- C:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 1000-1500 nm, AOI=0°
- E:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 1500-1900 nm, AOI=0°
- F:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 1900-2100 nm, AOI=0°
- X:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 240-380 nm, AOI=0°
- Y:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 320-450 nm, AOI=0°

### AR-HighPower-Coatings:

- K:  $R < 0.25\%$ , 355 nm, AOI=0°
- L:  $R < 0.25\%$ , 532 nm, AOI=0°
- M:  $R < 0.25\%$ , 1064 nm, AOI=0°
- N:  $R < 0.25\%$ , 266 nm, AOI=0°
- O:  $R < 0.25\%$ , 632 nm, AOI=0°
- P:  $R < 0.25\%$ , 780 nm, AOI=0°
- Q:  $R < 0.25\%$ , 1550 nm, AOI=0°
- R:  $R < 0.25\%$ , 2000 nm, AOI=0°



Unmounted Asphere



Mounted Asphere

## Precision

Product Code	RMS <sub>i</sub>	Wavefront RMS	Ø	EFL	NA	f/d	WD	λ <sub>Design</sub>
	[µm]	[nm]	[mm]	[mm]			[mm]	[nm]
AFL12-10-P	≤0.5	≤ 235	12.5	10	0.58	0.833	5.7	355
AFL12-15-P	≤0.5	≤ 235	12.5	15	0.39	1.2	12.3	285
AFL12-20-P	≤0.5	≤ 235	12.5	20	0.29	1.6	17.3	285
AFL25-17-P	≤0.5	≤ 235	25	17	0.64	0.7	10.0	355
AFL25-20-P	≤0.5	≤ 235	25	20	0.56	0.8	12.6	355
AFL25-25-P	≤0.5	≤ 235	25	25	0.48	1.0	17.0	285
AFL25-30-P	≤0.5	≤ 235	25	30	0.39	1.2	23.3	285
AFL25-40-P	≤0.5	≤ 235	25	40	0.29	1.6	34.6	285
AFL25-50-P	≤0.5	≤ 235	25	50	0.23	2.0	45.1	355
AFL25-75-P	≤0.5	≤ 235	25	75	0.15	3.0	70.9	355
AFL25-100-P	≤0.5	≤ 235	25	100	0.11	4.0	96.3	355
AFL50-40-P	≤0.5	≤ 235	50	40	0.56	0.8	25.2	355
AFL50-50-P	≤0.5	≤ 235	50	50	0.48	1.0	37.0	355
AFL50-60-P	≤0.5	≤ 235	50	60	0.39	1.2	48.3	285
AFL50-80-P	≤0.5	≤ 235	50	80	0.29	1.6	70.6	285
AFL50-100-P	≤0.5	≤ 235	50	100	0.23	2.0	91.5	355

## Ultra

Product Code	RMS <sub>i</sub>	Wavefront RMS	∅	EFL	NA	f/d	WD	λ <sub>Design</sub>
	[μm]	[nm]	[mm]	[mm]			[mm]	[nm]
AFL12-10-U	≤0.3	≤140	12.5	10	0.58	0.833	5.7	355
AFL12-15-U	≤0.3	≤140	12.5	15	0.39	1.2	12.3	285
AFL12-20-U	≤0.3	≤140	12.5	20	0.29	1.6	17.3	285
AFL25-17-U	≤0.3	≤140	25	17	0.64	0.7	10.0	355
AFL25-20-U	≤0.3	≤140	25	20	0.56	0.8	12.6	355
AFL25-25-U	≤0.3	≤140	25	25	0.48	1.0	17.0	285
AFL25-30-U	≤0.3	≤140	25	30	0.39	1.2	23.3	285
AFL25-40-U	≤0.3	≤140	25	40	0.29	1.6	34.6	285
AFL25-50-U	≤0.3	≤140	25	50	0.23	2.0	45.1	355
AFL25-75-U	≤0.3	≤140	25	75	0.15	3.0	70.9	355
AFL25-100-U	≤0.3	≤140	25	100	0.11	4.0	96.3	355
AFL50-40-U	≤0.3	≤140	50	40	0.56	0.8	25.2	355
AFL50-50-U	≤0.3	≤140	50	50	0.48	1.0	37.0	355
AFL50-60-U	≤0.3	≤140	50	60	0.39	1.2	48.3	285
AFL50-80-U	≤0.3	≤140	50	80	0.29	1.6	70.6	285
AFL50-100-U	≤0.3	≤140	50	100	0.23	2.0	91.5	355

## BeamTuning

Product Code	RMS <sub>i</sub>	Wavefront RMS	∅	EFL	NA	f/d	WD	λ <sub>Design</sub>
	[μm]	[nm]	[mm]	[mm]			[mm]	[nm]
AFL25-50-D	0.02	≤10	25	50	0.23	2.0	45.1	355
AFL25-75-D	0.02	≤10	25	75	0.15	3.0	70.9	355
AFL25-100-D	0.02	≤10	25	100	0.11	4.0	96.3	355

1 Custom coatings available upon request. | RMS<sub>i</sub> corresponds to ISO 10110-5 (surface form tolerances). | Typically used J-Fiber SQ 1 or equivalent corning 7980 quality. | General: Technical parameters and prices are subject to change without prior notice.

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