

## FusedSilica Aspheres

Fused silica lenses are optimized for several high-power laser applications, as prototypes in test devices or as standard components for beam focusing or collimation. Available in three different quality levels, with superior roughness values, as mounted optics and with 7 different coatings.

### Key Benefits:

- = Outstanding surface form deviation ( $RMS_s$ , up to  $\leq 0.02 \mu\text{m}$ )
- = High-end finished optics with lowest roughness ( $\leq 0.5 \text{ nm}$ ) for reduced scattering
- = Laser induced damage threshold:  $12 \text{ J/cm}^2$ , 100 Hz, 6 ns, 532 nm
- = Off-the-shelf delivery
- = RoHS compliance

### Coatings:

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

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

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

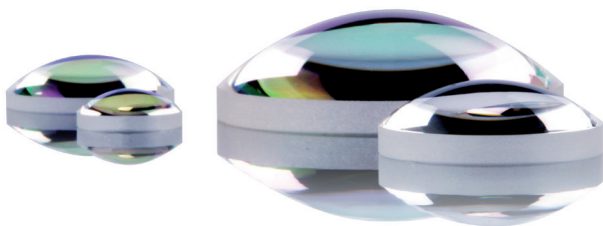
X:  $R_{\text{MAX}} < 1.0\%$ ,  $R_{\text{AVG}} \leq 0.4\%$ , 240-380 nm, AOI=0°

### V-coatings:

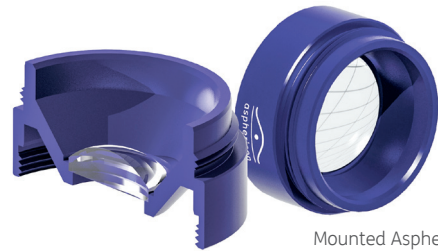
K:  $R < 0.25\%$ , 355 nm, AOI=0°

L:  $R < 0.25\%$ , 532 nm, AOI=0°

M:  $R < 0.25\%$ , 1064 nm, AOI=0°



Unmounted Asphere



Mounted Asphere

### Precision NEW

Surface Form Deviation ( $RMS_s$ ) <sup>1</sup>	[ $\mu\text{m}$ ]	$\leq 0.5$
Wavefront RMS	[nm]	$\leq 235$

Product Code	$\varnothing$	EFL	NA	f/d	WD	$\lambda_{\text{Design}}$
	[mm]	[mm]			[mm]	[nm]
AFL12-10-P	12.5	10	0.58	0.833	5.7	355
AFL12-15-P	12.5	15	0.39	1.2	12.3	285
AFL12-20-P	12.5	20	0.29	1.6	17.3	285
AFL25-17-P	25	17	0.64	0.7	10.0	355
AFL25-20-P	25	20	0.56	0.8	12.6	355
AFL25-25-P	25	25	0.48	1.0	17.0	285
AFL25-30-P	25	30	0.39	1.2	23.3	285
AFL25-40-P	25	40	0.29	1.6	34.6	285
AFL25-50-P	25	50	0.23	2.0	45.1	355
AFL25-75-P	25	75	0.15	3.0	70.9	355
AFL25-100-P	25	100	0.11	4.0	96.3	355
AFL50-40-P	50	40	0.56	0.8	25.2	355
AFL50-50-P	50	50	0.48	1.0	37.0	355
AFL50-60-P	50	60	0.39	1.2	48.3	285
AFL50-80-P	50	80	0.29	1.6	70.6	285
AFL50-100-P	50	100	0.23	2.0	91.5	355

## Ultra NEW

Surface Form Deviation (RMS) <sup>1</sup>	[ $\mu\text{m}$ ]	$\leq 0.3$
Wavefront RMS	[nm]	$\leq 140$

Product Code	$\varnothing$ [mm]	EFL [mm]	NA	f/d	WD [mm]	$\lambda_{\text{Design}}$ [nm]
AFL12-10-U	12.5	10	0.58	0.833	5.7	355
AFL12-15-U	12.5	15	0.39	1.2	12.3	285
AFL12-20-U	12.5	20	0.29	1.6	17.3	285
AFL25-17-U	25	17	0.64	0.7	10.0	355
AFL25-20-U	25	20	0.56	0.8	12.6	355
AFL25-25-U	25	25	0.48	1.0	17.0	285
AFL25-30-U	25	30	0.39	1.2	23.3	285
AFL25-40-U	25	40	0.29	1.6	34.6	285
AFL25-50-U	25	50	0.23	2.0	45.1	355
AFL25-75-U	25	75	0.15	3.0	70.9	355
AFL25-100-U	25	100	0.11	4.0	96.3	355
AFL50-40-U	50	40	0.56	0.8	25.2	355
AFL50-50-U	50	50	0.48	1.0	37.0	355
AFL50-60-U	50	60	0.39	1.2	48.3	285
AFL50-80-U	50	80	0.29	1.6	70.6	285
AFL50-100-U	50	100	0.23	2.0	91.5	355

## BeamTuning NEW

Surface Form Deviation (RMS) <sup>1</sup>	[ $\mu\text{m}$ ]	$\leq 0.02$
Wavefront RMS	[nm]	$\leq 10$
Surface Roughness	[nm]	$\leq 0.5$

Product Code	$\varnothing$ [mm]	EFL [mm]	NA	f/d	WD [mm]	$\lambda_{\text{Design}}$ [nm]
AFL25-50-D	25	50	0.23	2.0	45.1	355
AFL25-75-D	25	75	0.15	3.0	70.9	355
AFL25-100-D	25	100	0.11	4.0	96.3	355

Custom coatings available upon request. | 1 RMSi 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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