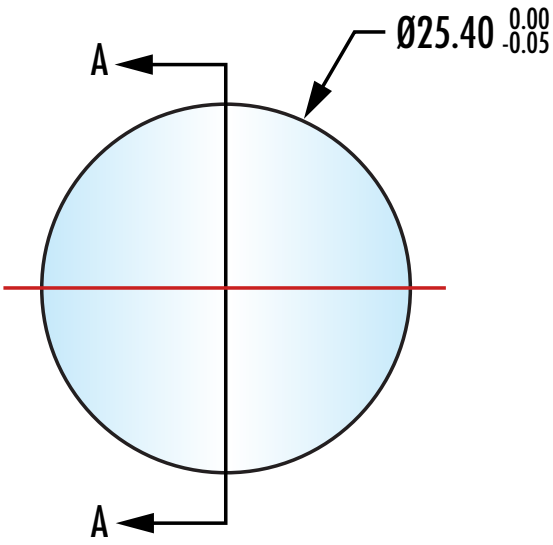
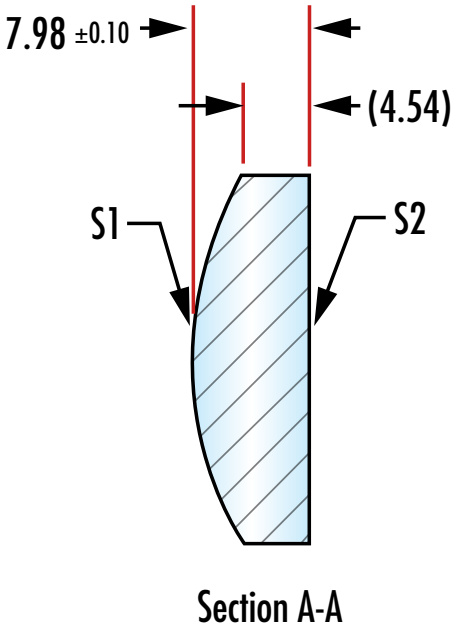
λ/40 LASER GRADE ASPHERIC LENSES

TECHSPEC® LASER GRADE ASPHERIC LENSES WITH λ/40 RMS ASPHERE FIGURE ERROR

TECHSPEC® λ/40 Laser Grade Aspheric Lenses are polished through precision magnetorheological finishing (MRF), providing them with an ultra-smooth aspheric surface with an aspheric surface tolerance of λ/40 RMS. The aberration free aspheric surfaces produced through this super-polishing process result in these aspheric lenses having diffraction-limited performance at their design wavelengths. A high-performance Laser Line V-Coat minimizes reflection when these aspheric lenses are used at their Nd:YAG wavelengths. TECHSPEC® λ/40 Laser Grade Aspheric Lenses feature substrates designed and shaped at their laser wavelength to optimize the entire lens design, not just the anti-reflection coating, for the laser wavelength. Standard imperial sizes of these laser grade aspheres with f/2 designs, made from fused silica, are available.





Section A-A

FEATURES
CNC Polished
Eliminate Spherical Aberrations
0.016μm RMS Aspheric Figure Error
10-5 Surface Quality
1″ and 2″ Diameter Options
High Numerical Apertures
Designed, Specified, and/or Manufactured by Edmund Optics®

APPLICATIONS
Laser Equipment
Detectors
Cytometers/Cell Counters
Spectrometry
Surgical Systems
Test Equipment
Imaging (Inspection, Cameras, OCT, Fluorescence)

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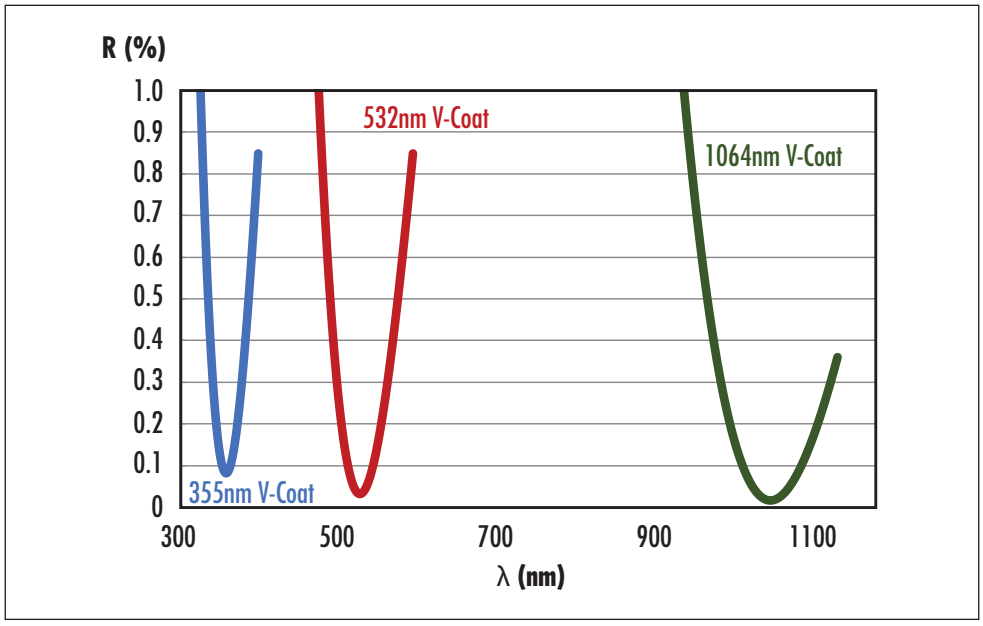
COMMON CHARACTERISTICS	
Design Wavelength	355nm, 532nm, or 1064nm
Clear Aperture	90%
Conjugate Distance	Infinite
RoHS	Compliant

UNIQUE SPECIFICATIONS

Parameter	Lower Cost	This Family	Higher Precision
	λ/40	λ/40 Laser Grade	Custom Options Available
Asphere Figure Error @ 632.8nm (μm RMS)	0.016	0.016	0.016
Surface Quality	40-20	10-5	10-5
Diameter Tolerance	+0.0/-0.025	+0.00/-0.05	+0.00/-0.05
Material	L-BAL35, N-SF6, N-BK7	Fused Silica	Fused Silica

COMMONLY SELECTED COATINGS

Coating Name	Spectral Range (nm)	Reflection	Environmental Conditions
355nm Laser V-Coat	355	$R_{abs} < 0.25\%$	MIL-PRF-13830B: Pass per C.3.8.4
532nm Laser V-Coat	532	$R_{abs} < 0.25\%$	MIL-PRF-13830B: Pass per C.3.8.4
1064nm Laser V-Coat	1064	$R_{abs} < 0.25\%$	MIL-PRF-13830B: Pass per C.3.8.4



Custom coating options for all products are available upon request.