

Products Categories

- Windows
- Prisms
- Lenses
- Beamsplitters
- Waveplates
- Polarizers
- Mirrors
- Filters
- Crystals
- Materials

- Please Inquiry -

Tel: +86 591 8733 8232
 Fax: +86 591 8733 4595
 E-mail:sales@cn-optics.com

Products > Lenses > Achromatic Lenses

Achromatic Lenses

Achromatic lenses are lenses consisting of two or more elements, which are usually made of crown and flint glass with differing indices of refraction. One element is positive, the other is negative. Distinct wavelengths can be corrected for chromatic aberration.

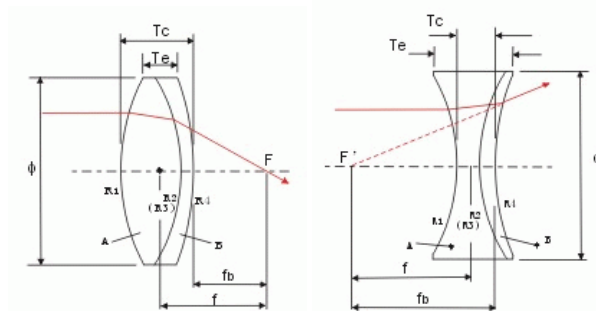
Achromatic lenses are nearly free from aspherical aberration and coma. Comparing with singlet lenses, achromatic lenses have far superior optical performance.

Bond with glue NOA61 (produced by Norland)

The glue can withstand temperatures from -150°C to 125°C.
 Refractive Index of Cured Polymer is 1.56, and transparence from 0.34µm to 2.0µm.
 Please go to Norland website for more information of the glue.

Specifications

Material: See tables
 Diameter tolerance: +/-0.1mm
 Design wavelength: 546.1nm
 Focal tolerance: +/-2%
 Surface quality : 60-40 S/D
 Centration: 3 arcmin
 Surface flatness: λ/4 @633nm
 Clear aperture: 90%
 Bevel: Protective bevel



Item#	Φ(mm)	F(mm)	Material-A	Material-B	R1(mm)	R2/R3(mm)	R4(mm)	Tc(mm)	Fb(mm)
LAO-6-10	6.0	10.0	SK9	SF15	6.55	-4.05	-23.23	3.6+0.8	7.54
LAO-6-15	6.0	15.0	BK7	SF5	8.83	-6.54	-19.77	2.71+1.0	13.06
LAO-6-20	6.0	20.0	BK7	SF5	12.36	-8.51	-24.38	2.6+1.0	18.29
LAO-6-25	6.0	25.0	BK7	SF5	15.70	-10.66	-29.99	2.3+1.0	23.45
LAO-6-30	6.0	30.0	BK7	SF5	18.88	-12.94	-34.68	1.9+1.0	28.69
LAO-8-25	8.0	25.0	BK7	SF5	15.60	-10.81	-30.48	2.9+1.0	23.12
LAO-8-30	8.0	30.0	BK7	SF5	18.88	-12.88	-36.22	2.7+1.0	28.27
LAO-12-25	12.7	25.0	BK7	SF5	15.60	-11.40	-31.05	4.3+1.3	22.25
LAO-12-30	12.7	30.0	BK7	SF5	18.53	-13.49	-37.84	4.0+1.3	27.36
LAO-12-40	12.7	40.0	BK7	SF5	25.23	-17.54	-48.75	3.4+1.3	37.77
LAO-12-50	12.7	50.0	BK7	SF5	31.26	-21.93	-62.37	3.1+1.3	47.99
LAO-12-75	12.7	75.0	BK7	SF5	46.77	-32.96	-94.62	2.6+1.3	73.23
LAO-18-40	18.0	40.0	BK7	SF5	24.27	-18.35	-53.09	5.4+1.5	36.51
LAO-18-50	18.0	50.0	BK7	SF5	31.69	-22.00	-60.57	4.8+1.5	46.98
LAO-18-60	18.0	60.0	BK7	SF5	37.84	-26.49	-73.79	4.1+1.5	57.30
LAO-18-80	18.0	80.0	BK7	SF5	49.55	-36.81	-165.58	3.4+1.5	77.41
LAO-25-50	25.4	50.0	BaF53	SF4	34.59	-24.21	-179.06	7.8+2.0	44.52
LAO-25-60	25.4	60	BK7	SK5	37.33	-27.16	-75.86	7.0+2.0	55.56
LAO-25-80	25.4	80	K7	SF1	49.09	-37.93	-95.94	5.5+2.0	76.46
LAO-25-100	25.4	100.0	BK3	SF5	60.67	-44.67	-122.18	4.5+2.0	97.05
LAO-25-120	25.4	120.0	BK7	SF5	73.28	-54.33	-159.96	4.2+2.0	117.10
LAO-30-100	30.0	100.0	BK3	SF5	59.02	-45.29	-127.64	6.8+2.5	95.26
LAO-30-140	30.0	140.0	BK3	SF5	84.92	-62.23	170.61	.9+2.54	136.60

Choose Anti-reflective Coatings

- Single layer MgF₂
- Multiple layers AR coating
 R<0.25% @ Laser line (view the curve)
 R<0.5% @ Broadband Wavelength (view the curve)

How to order Singlet Lenses?

Example:

Element-A: N-SF5
 Material: N-BK7
 Diameter: Φ25.4 +0/-0.1
 Thickness Tc1=4.0
 Radius: R1=73.28 R2(R3)=-54.33 R4=-159.96
 Surface quality:: 60-40s/d
 Flatness:: λ/4 @633nm
 Centration:: 3'
 Coating: AR @430-680nm, R<0.5%, AOI=0°

Price on Request

Custom Design

Volume Discount