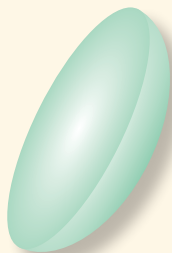


Contact lens

Clinical Pocket Guide

5th edition



A  CLE



The Association of Optometric Contact Lens Educators (AOCLE) is a non-profit organization committed to fostering the highest levels of education in the areas of cornea and contact lenses and supporting the faculty in these areas at each of the North American schools and colleges of optometry.

For more information and an electronic version of this pocket guide, consult our website at;
www.aocle.org

Copyright © 2014 AOCLE. All rights reserved.

Table of Contents

General CL Info

Soft Lenses

GP Lenses

Useful Websites

Key Questions for Contact Lens Wearers

- Do you like wearing your contact lenses? What could be done to make them better?
- Are your lenses comfortable? Do your eyes feel dry while wearing your lenses?
- Do you see well at both distance and near with your lenses?
- How long have you worn your lenses today & on average?
- How old is this pair of lenses? How often do you replace your lenses?
- What care system do you use and how do you use it? How long have you been using this solution?
- When was the last time you replaced your lens case?
- Do you experience any ocular redness, irritation, drying, itching or discomfort? If yes, after how many hours of contact lens wear?
- Do you sleep or nap in your lenses? How long? Would you like to?
- Would you be interested in toric/multifocal/1-day/colored lenses?
- Do you have any questions about your contact lenses?

CL Related Red Eye Questions

- Chief Complaint:
 - Which eye is red?
 - How long has the problem existed?
 - Are symptoms getting better, worse or the same?
 - Is there pain?
 - Rate pain on a scale from 1 to 10, 10 being the worst.
 - What kind of discharge are you experiencing?
 - Are you sensitive to light?
 - Has there been a change in your vision?
 - Have you had (or been around someone with) a cold or flu?
 - Have you self treated?
- Do you wear contact lenses?
 - Does the problem go away when you take your CLs off?
 - What type/brand?
 - How many hours do you usually wear your CLs?
 - How old is your current pair?
 - How often do you throw out your CLs?
 - How often do you sleep/nap in your CLs?
 - What kind of CL solution do you use?
 - When did you last change your lens case?
- Other considerations
 - Allergies (medicine/environment)
 - Biomicroscopy /Staining
 - Lids and Lashes
 - Conjunctiva
 - Injection (localized, circumlimbal)
 - Cornea
 - Infiltrate (location, size, depth)
 - Edema
 - A/C reaction
 - Previous occurrence
 - Recent travel

Vertex Distance Conversion Table

| Spectacle Lens | Plus Lens | Minus Lens | Spectacle Lens | Plus Lens | Minus Lens |
|----------------|-----------|------------|----------------|-----------|------------|
| 4.00 | +4.25 | -3.87 | 9.25 | +10.37 | -8.37 |
| 4.25 | +4.50 | -4.00 | 9.50 | +10.75 | -8.50 |
| 4.50 | +4.75 | -4.25 | 10.00 | +11.37 | -8.87 |
| 4.75 | +5.00 | -4.50 | 10.50 | +12.00 | -9.37 |
| 5.00 | +5.25 | -4.75 | 11.00 | +12.75 | -9.75 |
| 5.25 | +5.62 | -5.00 | 11.50 | +13.37 | -10.12 |
| 5.50 | +5.87 | -5.12 | 12.00 | +14.00 | -10.50 |
| 5.75 | +6.12 | -5.37 | 12.50 | +14.75 | -10.87 |
| 6.00 | +6.50 | -5.62 | 13.00 | +15.50 | -11.25 |
| 6.25 | +6.75 | -5.75 | 13.50 | +16.12 | -11.62 |
| 6.50 | +7.00 | -6.00 | 14.00 | +16.75 | -12.00 |
| 6.75 | +7.37 | -6.25 | 14.50 | +17.50 | -12.37 |
| 7.00 | +7.62 | -6.50 | 15.00 | +18.25 | -12.75 |
| 7.25 | +8.00 | -6.62 | 15.50 | +19.00 | -13.00 |
| 7.50 | +8.25 | -6.87 | 16.00 | +19.75 | -13.50 |
| 7.75 | +8.50 | -7.12 | 16.50 | +20.50 | -13.75 |
| 8.00 | +8.87 | -7.25 | 17.00 | +21.50 | -14.12 |
| 8.25 | +9.12 | -7.50 | 17.50 | +22.25 | -14.50 |
| 8.50 | +9.50 | -7.75 | 18.00 | +23.00 | -14.75 |
| 8.75 | +9.75 | -7.87 | 18.50 | +23.75 | -15.12 |
| 9.00 | +10.12 | -8.12 | 19.00 | +24.75 | -15.50 |

For 12mm vertex distance

F_{cl} = F_{spec} / 1-D F_{spec}

Diopter/mm Radius Conversion

| Diopters | Radius (mm) | Diopters | Radius (mm) | Diopters | Radius (mm) |
|----------|-------------|----------|-------------|----------|-------------|
| 37.00 | 9.121 | 43.00 | 7.848 | 49.00 | 6.887 |
| 37.25 | 9.060 | 43.25 | 7.803 | 49.25 | 6.852 |
| 37.50 | 9.000 | 43.50 | 7.758 | 49.50 | 6.818 |
| 37.75 | 8.940 | 43.75 | 7.714 | 49.75 | 6.78 |
| 38.00 | 8.881 | 44.00 | 7.670 | 50.00 | 6.75 |
| 38.25 | 8.823 | 44.25 | 7.627 | 50.25 | 6.72 |
| 38.50 | 8.766 | 44.50 | 7.584 | 50.50 | 6.68 |
| 38.75 | 8.708 | 44.75 | 7.541 | 50.75 | 6.65 |
| 39.00 | 8.653 | 45.00 | 7.500 | 51.00 | 6.62 |
| 39.25 | 8.598 | 45.25 | 7.458 | 51.25 | 6.59 |
| 39.50 | 8.544 | 45.50 | 7.417 | 51.50 | 6.55 |
| 39.75 | 8.490 | 45.75 | 7.377 | 51.75 | 6.52 |
| 40.00 | 8.437 | 46.00 | 7.336 | 52.00 | 6.49 |
| 40.25 | 8.385 | 46.25 | 7.297 | 52.25 | 6.46 |
| 40.50 | 8.333 | 46.50 | 7.258 | 52.50 | 6.43 |
| 40.75 | 8.282 | 46.75 | 7.219 | 52.75 | 6.40 |
| 41.00 | 8.231 | 47.00 | 7.180 | 53.00 | 6.37 |
| 41.25 | 8.181 | 47.25 | 7.142 | 53.25 | 6.34 |
| 41.50 | 8.132 | 47.50 | 7.105 | 53.50 | 6.31 |
| 41.75 | 8.083 | 47.75 | 7.068 | 53.75 | 6.28 |
| 42.00 | 8.035 | 48.00 | 7.031 | 54.00 | 6.25 |
| 42.25 | 7.988 | 48.25 | 6.994 | 54.25 | 6.22 |
| 42.50 | 7.941 | 48.50 | 6.958 | 54.50 | 6.19 |
| 42.75 | 7.894 | 48.75 | 6.923 | 54.75 | 6.16 |

337.5/ radius = diopters

Diopter/mm Radius Conversion

| Diopters | Radius (mm) | Diopters | Radius (mm) | Diopters | Radius (mm) |
|----------|-------------|----------|-------------|----------|-------------|
| 55.00 | 6.14 | 61.00 | 5.53 | 67.00 | 5.04 |
| 55.25 | 6.11 | 61.25 | 5.51 | 67.25 | 5.02 |
| 55.50 | 6.08 | 61.50 | 5.49 | 67.50 | 5.00 |
| 55.75 | 6.05 | 61.75 | 5.47 | 67.75 | 4.98 |
| 56.00 | 6.03 | 62.00 | 5.44 | 68.00 | 4.96 |
| 56.25 | 6.00 | 62.25 | 5.42 | 68.25 | 4.95 |
| 56.50 | 5.97 | 62.50 | 5.40 | 68.50 | 4.93 |
| 56.75 | 5.95 | 62.75 | 5.38 | 68.75 | 4.91 |
| 57.00 | 5.92 | 63.00 | 5.36 | 69.00 | 4.89 |
| 57.25 | 5.90 | 63.25 | 5.34 | 69.25 | 4.87 |
| 57.50 | 5.87 | 63.50 | 5.31 | 69.50 | 4.86 |
| 57.75 | 5.84 | 63.75 | 5.29 | 69.75 | 4.84 |
| 58.00 | 5.82 | 64.00 | 5.27 | 70.00 | 4.82 |
| 58.25 | 5.79 | 64.25 | 5.25 | 70.25 | 4.80 |
| 58.50 | 5.77 | 64.50 | 5.23 | 70.50 | 4.79 |
| 58.75 | 5.74 | 64.75 | 5.21 | 70.75 | 4.77 |
| 59.00 | 5.72 | 65.00 | 5.19 | 71.00 | 4.75 |
| 59.25 | 5.70 | 65.25 | 5.17 | 71.25 | 4.74 |
| 59.50 | 5.67 | 65.50 | 5.15 | 71.50 | 4.72 |
| 59.75 | 5.65 | 65.75 | 5.13 | 71.75 | 4.70 |
| 60.00 | 5.63 | 66.00 | 5.11 | 72.00 | 4.69 |
| 60.25 | 5.60 | 66.25 | 5.09 | 72.25 | 4.67 |
| 60.50 | 5.58 | 66.50 | 5.08 | 72.50 | 4.66 |
| 60.75 | 5.56 | 66.75 | 5.06 | 72.75 | 4.64 |

337.5/ radius = diopters

ICD-9 Codes**Refraction**

| | |
|-------------------------|--------|
| Hyperopia | 367.00 |
| Myopia | 367.10 |
| Astigmatism regular | 367.21 |
| Astigmatism irregular | 367.22 |
| Anisometropia | 367.31 |
| Presbyopia | 367.40 |
| Amblyopia (unspecified) | 368.00 |

Cornea

| | | | |
|---|--------|---|--------|
| Corneal ulcer. Unspecified | 370.00 | Adherent corneal leucoma | 371.04 |
| Corneal ulcer. Marginal | 370.01 | Phthisical cornea | 371.05 |
| Ring corneal ulcer | 370.02 | Corneal deposit. Unspecified | 371.10 |
| Central corneal ulcer | 370.03 | Corneal pigmentations anterior | 371.11 |
| Superficial keratitis. Unspecified | 370.20 | Corneal pigmentations stromal | 371.12 |
| Punctate keratitis | 370.21 | Corneal pigmentations posterior | 371.13 |
| Filamentary keratinis | 370.23 | Corneal edema. Unspecified | 371.20 |
| Vernal keratoconjunctivitis | 370.32 | Corneal edema. Secondary | 371.22 |
| Limbal and corneal involvement in vernal conjunctivitis | 370.32 | Corneal edema due to wearing of contact lenses | 371.24 |
| K sicca - not sjogren's | 370.33 | Folds in descemet's membrane | 371.32 |
| Exposure keratoconjunctivitis | 370.34 | Rupture in descemet's membrane | 371.33 |
| Neurotrophic keratitis | 370.35 | Corneal degeneration | 371.40 |
| Keratoconjunctivitis. Unspecified | 370.40 | Senile corneal changes | 371.41 |
| Corneal neovascularization. Unspecified | 370.60 | Recurrent corneal erosion | 371.42 |
| Localized vascularization of the cornea | 370.61 | Band-shaped keratopathy | 371.43 |
| Pannus (corneal) | 370.62 | Corneal degeneration salzmann's nodular | 371.46 |
| Ghost vessels (corneal) | 370.64 | Corneal degeneration peripheral (ex. Terrien's) | 371.48 |
| Keratitis. Unspecified | 370.90 | Hereditary corneal dystrophy. Unspecified | 371.50 |
| Corneal opacity. Unspecified | 371.00 | Other anterior corneal dystrophies | 371.52 |
| Corneal opacity. Minor | 371.01 | Keratoconus. Unspecified | 371.60 |
| Corneal opacity. Peripheral | 371.02 | Keratoconus. Stable | 371.61 |
| Corneal opacity. Central | 371.03 | Keratoconus - acute hydrops | 371.62 |
| | | Corneal ectasia | 371.71 |
| | | Corneal anesthesia and hypoesthesia | 371.81 |
| | | Corneal disorder due to contact lens | 371.82 |
| | | Corneal disorder. Unspecified | 371.90 |
| | | Corneal abrasion | 918.10 |
| | | Corneal foreign body | 930.00 |
| | | Complications of corneal graft | 996.51 |

ICD-9 Codes**Conjunctiva**

| | | | |
|---------------------------------------|--------|---|--------|
| Acute conjunctivitis, unspecified | 372.00 | Inflammation of eyelid. unspecified | 373.90 |
| Acute atopic conjunctivitis | 372.05 | Entropion. unspecified | 374.00 |
| Chronic conjunctivitis, unspecified | 372.10 | Senile entropion | 374.01 |
| Simple chronic conjunctivitis | 372.11 | Mechanical entropion | 374.02 |
| Chronic follicular conjunctivitis | 372.12 | Cicatrical entropion | 374.04 |
| Vernal conjunctivitis | 372.13 | Trichiasis of eyelid without entropion | 374.05 |
| Other chronic allergic conjunctivitis | 372.14 | Ectropion. unspecified | 374.10 |
| Blepharoconjunctivitis, unspecified | 372.20 | Senile ectropion | 374.11 |
| Angular Blepharitis | 372.21 | Mechanical ectropion | 374.12 |
| Contact blepharoconjunctivitis | 372.22 | Cicatrical ectropion | 374.14 |
| Conjunctivitis, unspecified | 372.30 | Lagophthalmos. unspecified | 374.20 |
| Rosacea conjunctivitis | 372.31 | Ptosis of eyelid. unspecified | 374.30 |
| Pingueculitis | 372.34 | Paralytic ptosis | 374.31 |
| Pterygium, unspecified | 372.40 | Blepharochalasis | 374.34 |
| Pinguecula | 372.51 | Lid retraction or lag | 374.41 |
| Conjunctival concretions | 372.54 | Hemorrhage of eyelid | 374.81 |
| Symblepharon | 372.63 | Edema of the eyelid | 374.82 |
| Scarring of conjunctiva | 372.64 | Retained foreign body of the eyelid | 374.86 |
| Conjunctival hyperemia | 372.71 | Dermatochalasis | 374.87 |
| Conjunctival hemorrhage | 372.72 | | |
| Conjunctival edema | 372.73 | Lacrimal System | |
| Conjunctival cysts | 372.75 | Dry Eye. unspecified | |
| | | (tear film insufficiency unspecified) | 375.15 |
| | | Epiphoria. unspecified | 375.20 |
| | | Epiphoria due to excessive lacrimation | 375.21 |
| | | Epiphoria due to insufficient drainage/ | 375.22 |
| | | Lacrimal system. NOS | 375.90 |
| | | | |
| | | Other Disorders of the Eye | |
| | | Pain in or around eye | 379.91 |
| | | Redness or discharge of the eye | 379.93 |

Pre-Ocular Tear Film (POTF) evaluation

| White light evaluation | Normal observations |
|---|--|
| Specular reflection of the ocular surface | regular, smooth surface |
| Blink | complete, 12-15/min (<TBUT) |
| Lid apposition | good apposition with the globe along the entire lid margin (no entropion/ectropion) |
| Punctum | open and good apposition |
| Debris in the POTF | minimal to none |
| Tear Meniscus | TMH Inf > Sup (0.2-0.4mm) slight coloration, no frothing or foaming, little to no debris, movement with blink towards the punctum |
| Viscosity | moderate movement |
| Lashes | clear, no debris |
| Meibomian glands | easily expressed with clear liquid secretions |
| Vital Staining | Normal observations |
| TBUT | > 10 seconds |
| Fluorescein staining | < grade 1 |
| Rose bengal/ Lissamine green | < grade 1 |
| Jones Test | patent nasolacrimal system |
| Tear Tests | Normal observations |
| Schirmer (w/o anesthesia) | 5-10 mm/5 min |
| PRIT / CTT | >10 mm /15 sec |
| NIBUT | >Fluorescein TBUT |
| ULMS/LWE | no staining |
| LIPCOF | none |
| Tear ferning | Type I or II (Rolando's criteria) |
| Tear osmolarity | <308 mOsm/L |
| MMP-9 (InflammaDry) | <40ng/ml |

CL solution sampling guidelines

Contact Lens Solutions

- Sample one (1) starter kit per new contact lens fit/refit/change of solution and consider a written recommendation of the product to promote compliance
- Document the recommended product in the medical record
- Do not offer the patient multiple sample kits
- Do not offer the patient different starter kits, as this will contribute to poor compliance
- Educate the patient on the importance of contact lens case hygiene, which is why a new case is included in each starter kit. Recommend replacing the case every 1-3 months
- Do not break-up starter kits to provide patients with individual components
- Using the latest scientific data, consider any potential CL/Solution incompatibilities to guide your choice of solution
- Explain to the patient how long the sample is likely to last and what to do thereafter (fill an Rx, return for a follow-up visit, etc.)

Rewetting drops

- Sample one (1) bottle of rewetting drop during the eye examination and consider providing a written recommendation to promote compliance
- Document the recommended product in the medical record
- Do not offer the patient multiple sample bottles
- Explain to the patient how long the sample is likely to last and what to do thereafter (fill an Rx, return for a follow-up visit, etc.)

General considerations

- Use your discretion in sampling when it may be difficult for a patient to get to a pharmacy (weekends, evenings, holidays)
- To promote compliance, explain to the patient why you have chosen that product, since not all products are the same
- Educate the patient that generic products are usually not the same as the latest brand name products and may change in formulations from year to year
- Instruct the patient to check the expiration dates on all medications, including contact lens solutions
- Promote an annual supply of contact lenses once the fit is complete to promote compliance
- Review manufacturer's recommendations with respect to the given product
- Use the AOCLE Healthy Habits tear-off pads to educate novice wearers or as a review with habitual wearers

Bottle Size: Lubricants/Rewetting drops

| Brand Name | Manufacturer | Preservative | Bottle Size |
|--|--------------|-----------------|-------------------|
| Advanced Eye Relief Dry Eye Rejuvenation (USA) | B+L | BAK/ED | 15mL |
| Aquify Comfort Drops (Canada) | Alcon | Phosphoric Acid | 10mL |
| Bion Tears | Alcon | none | unidose |
| Blink Contacts | Abbott | OcuPure | 2mL/10mL |
| Blink Gel Tears | Abbott | OcuPure | 10mL |
| Blink Tears | Abbott | OcuPure/none | 15mL/30mL/unidose |
| Clerz Plus Lens Drops | Alcon | Polyquad/ED | 5mL/8mL/15 mL |
| COMPLETE Blink-N-Clean | Abbott | PHMB | 20mL |
| COMPLETE Lubricating/rewetting | Abbott | PHMB | 15mL |
| FreshKote (USA) | Focus | Polixetonium | 15mL |
| GenTeal Lubricant Eye Drops | Alcon | GenAqua | 15 mL |
| I-Drop/ I-Drop PM (Canada) | I-Med | none | unidose |
| I-Drop Plus/ I-Drop Pur Gel (Canada) | I-Med | none | 10mL |
| Liposic Ophthalmic Drops (Canada) | B+L | Cetremide | 10mL |
| Moisture Eyes (Canada) | B+L | BAK | 15mL |
| Oasis Tears/ Oasis Tears Plus / Multidose | Oasis | none /EDTA | unidose/10mL |
| OPTI-FREE RepleniSH Rewetting Drops | Alcon | Polyquad/ED | 10mL |
| OPTI-FREE PureMoist Rewetting Drops | Alcon | Polyquad/ED | 12mL |
| Refresh Celluvisc | Allergan | none | unidose |
| Refresh Contacts | Allergan | Purite | 15mL |
| Refresh Endura (Canada) | Allergan | none | unidose |
| Refresh Liqueigel | Allergan | Purite | 15mL/30mL |
| Refresh Optive (USA) | Allergan | Purite | 15mL/ 30mL |
| Refresh Optive Advanced | Allergan | Purite/none | 10mL/unidose |
| Refresh Optive Sensitive (USA) | Allergan | none | unidose |

| Brand Name | Manufacturer | Preservative | Bottle Size |
|--|--------------|-------------------|----------------------|
| Refresh Tears | Allergan | Purite | 15mL / 30mL |
| Refresh Ultra (Canada) | Allergan | Purite | 15mL |
| Refresh Classic/Refresh Plus | Allergan | none | unidose |
| ReNu Multiplus Lubricating/Rewetting | B+L | Sorbic Acid/ED | 8mL |
| ReNu Rewetting Drops | B+L | Sorbic Acid/ED | 15mL |
| Retaine CMC Lubricant (USA) | Ocusoft | none | unidose |
| Retaine HPMC Lubricant (USA) | Ocusoft | none | 10mL |
| Retaine MGD Ophthalmic Emulsion (USA) | Ocusoft | none | unidose |
| Sensitive Eyes Drops | B+L | Sorbic Acid/ED | 15mL/30mL |
| Soothe Hydration (USA) | B+L | Sorbic Acid/ED | 15mL |
| Soothe Long Lasting (USA) | B+L | BAK/ED | 15mL |
| Soothe Preservative Free (USA) | B+L | None | unidose |
| Soothe Xtra Protection Emollient (USA) | B+L | Polyquaternium/ED | 15mL |
| Systane | Alcon | Polyquad/none | 15mL / 30mL/ unidose |
| Systane Balance | Alcon | Polyquad | 10mL |
| Systane Contacts (USA) | Alcon | Polyquad | 12mL |
| Systane Gel Drops | Alcon | Polyquad | 10 mL |
| Systane ULTRA | Alcon | Polyquad/none | 5mL/10mL/unidose |
| Tears Naturale II | Alcon | Polyquad | 15mL / 30mL |
| Tears Naturale Forte | Alcon | Polyquad | 15mL / 30mL |
| Tears Naturale Free | Alcon | none | unidose |
| Tears Plus (Canada) | Allergan | Chlorobutanol | 15mL |
| TheraTears | AVR | PBS/ none | 15mL/ 30mL/ unidose |
| TheraTears CL drops (USA) | AVR | PBS | 10 mL |
| TheraTears Liquid Gel PF (USA) | AVR | none | unidose |

ED = Edetate Disodium
GenAqua = Sodium Perborate

PBS= sodium perborate
PHMB = polyhexamethylene biguanide

Bottle size: Gels/Ointments/Inserts

| Brand Name | Manufacturer | Preservative | Bottle Size |
|-----------------------------------|--------------|------------------|--------------|
| Duolube (Canada) | B-L | none | 3.5g tube |
| GenTeal Gel | Alcon | Sodium perborate | 10g tube |
| GenTeal Nighttime PM | Alcon | none | 3.5g tube |
| Lacrisert | Valeant | none | 5mg/insert |
| Liposic Gel (Canada) | B-L | Cetremide | 10g tube |
| Refresh Lacrilube | Allergan | none | 3.5/7g tubes |
| Refresh PM | Allergan | none | 3.5g tube |
| Retaine PM (USA) | Ocusoft | none | 5g tube |
| Soothe Night Time (USA) | B-L | none | 3.5g tube |
| Systane Lubricant Eye Gel (USA) | Alcon | Polyquad | 10g tube |
| Systane Night-Time Ointment (USA) | Alcon | none | 3.5g tube |
| Tear Gel (Canada) | Alcon | Cetremide | 10g tube |
| Tears Naturale PM Ointment | Alcon | none | 3.5g tube |

Bottle Size: Lid Hygiene Products

| Brand Name | Manufacturer | Preservative | Format |
|-------------------------------------|--------------|-----------------------------|-------------------------|
| Baby Eyelid & Eyelash Cleanser | Ocusoft | PHMB | 20 pads/box |
| Blephagel | Thea | none | 30 g tube |
| Blephaclean | Thea | none | 20 pads/box |
| Blephasol | Thea | none | 100ml |
| iLid Cleanser (USA) | NovaBay | Hypochlorous acid | 40ml |
| iLid 'n'lash /wipes | I-MED | Methylparabens /borate, PEG | 50ml /60 pads/box |
| Lid Scrub Original Eyelid Cleanser | Ocusoft | Quaternium-15 | 30 pads/ box; 50mL foam |
| Lid Scrub Plus Eyelid Cleanser | Ocusoft | PHMB | 30 pads/ box; 50mL foam |
| Oasis Lid & Lash Gel Cleanser (USA) | Oasis | Methylparabens | 50ml |
| Systane Lid Wipes | Alcon | EDTA, Benzyl alcohol | 30 pads/ box |
| Theratears Sterilid/Theralid | AVR | EDTA, Sodium hydroxide | 48mL foam |
| Theratears Sterilid Gel (USA) | AVR | EDTA, Sodium hydroxide | 15mL |

Liposomal Sprays

| Brand Name | Manufacturer | Preservative | Format |
|----------------------|--------------|--------------|--------|
| Tears Again Advanced | Ocusoft | EDTA | 15mL |

Ophthalmic Dyes

| Dyes | Brand Name | Composition | Format |
|------------------------------|--------------------------------------|--|-----------|
| Fluorescein | Fluorets, Ful Glo, Bio Glo, Diafluor | Fluorescein sodium 1 mg | strip |
| | Glo Strips | Fluorescein sodium 0.6 mg | strip |
| | Dry Eye Test (DET) | Fluorescein sodium 0.12 mg | strip |
| | Minims Fluorescein | Fluorescein sodium 2.0% | unit dose |
| Fluorescein (large molecule) | Floresoft | Fluorescein sodium 0.35% | solution |
| | Soft Glo | Fluorexon disodium 0.5mg | strip |
| Fluorescein/anesthetic | Fluress, Fluorox | Fluorescein Sodium 0.25% Benoxinate Hydrochloride 0.4% | solution |
| | Fluorocaine | Fluorescein Sodium 0.25% Proparacaine HCl 0.5% | solution |
| | Fluro-Safe | Fluorexon disodium 0.35% Benoxinate Hydrochloride 0.4% | solution |
| | Minims Lignocaine/ Fluorescein | Fluorescein 0.25%, Lignocaine 4.0% | unit dose |
| Fluorescein/Lissamine | Fluramene | 1% fluorescein Sodium 0.5% Lissamine Green | solution |
| Lissamine Green | Lissamine green | Lissamine green 1.5 mg | strip |
| Rose Bengal | Rose Glo | rose bengal 1.5 mg | strip |

Soft Lens Fit Assessment

| | good | tight | loose |
|---------------------------|------------------------------|---------------------------------|--------------------------------|
| Centration | full, equal | full, equal | superior, decentered |
| Lens covers cornea | completely | completely | nasal exposure |
| Acuity | clear, stable | after blink clear, blur = steep | after blink blur, clear = flat |
| Movement | perceptible 0.25 - 1.0 mm | less | more |
| Other: | Over-K (after blink) | clear, blur = steep | blur, clear = flat |
| | Push-up test | easy | difficult |
| | Rapid (forced blink) | smooth movement | slow movement |
| | | | excessive movement |

Soft CL Selection Guideline

Diameter = HVID + 2mm (usually 14.0 - 14.5)

If 3 base curves available: flat K < 42.00 = flatter BC
42.00 - 45.00 = middle BC
flat K > 45.00 = steeper BC

If 2 base curves available: flat K ≤ 44.00 = flat BC
flat K ≥ 44.25 = steep BC

Soft Lens Identification Markings

Bausch + Lomb Products

| No markings | B+L inversion indicator |
|--------------------------------|-------------------------------------|
| Biotrue ONE day | PureVision |
| Biotrue ONE day for presbyopia | Sofflens 38: S=8.4 BC; M=8.7; F=9.0 |

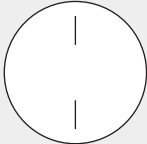
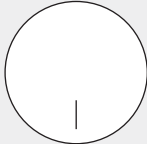
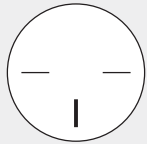
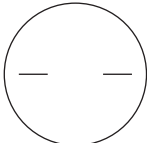
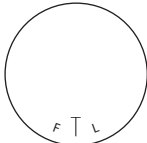
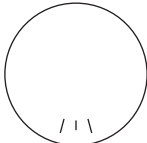
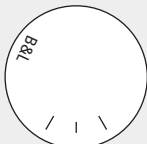
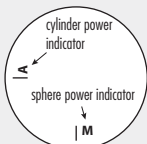
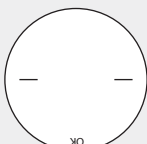
ALCON (formerly Ciba Vision) Products

| No markings | Lens Markings |
|---------------------------|--|
| Dailies Total 1 | Air optix Night & Day Aqua: CIBA Z4##=8.4 BC; CIBA Z6##=8.6 |
| Focus Dailies (sphere/MF) | Air Optix Aqua: CIBA X6##= 8.6 BC |
| Freshlook Colorblends | Air Optix for astigmatism: CIBA B7## = 8.7 BC Air Optix MF: CIBA PL/PM/PH ##= low/med/high add Freshlook (Colors, Dimensions, handling tint): FL inversion indicator |

Vistakon Products

| No markings | 1 2 3 Inversion Indicator |
|---------------------------------------|--------------------------------|
| Acuvue OASYS (astigmatism/presbyopia) | 1 Day Acuvue Acuvue OASYS |
| | 1 Day Acuvue Moist Acuvue 2 |
| | 1 Day Acuvue Tru-Eye |

Soft Toric Markings

| | | |
|--|--|---|
| <p>1-Day Acuvue Moist for Astigmatism OASYS for Astigmatism</p>  | <p>Avaira Toric/XR Biofinity Toric Biomedics Toric Frequency 55 Toric/XR Proclear Toric XR</p>  | <p>Air Optix for astigmatism</p>  |
| <p>Extreme H₂O Toric Multifocal Toric Proclear</p>  | <p>Freshlook Toric/ Colorblends</p>  | <p>Proclear Toric marks represent 15° either side</p>  |
| <p>PureVision Toric marks represent 30° either side</p>  | <p>Purevision2 for astigmatism</p>  | <p>Focus DAILIES Toric DAILIES ACP Toric</p>  |

Recommended Soft CL Replacement Schedules

FDA Group I (non-ionic, <50% water)

| 1 Day Replacement | | |
|--------------------|---------------|---------------------------------|
| B+L | SoftLens (MF) | DW |
| 2 Week Replacement | | |
| B+L | SoftLens 38 | DW |
| CooperVision | Biomedics 38 | DW (US) DW/EW (7 day) Canada |

FDA Group II (non-ionic, >50% water)

| 1 Day Replacement | | |
|--------------------|--|-------------|
| Alcon | DAILIES AquaComfort Plus (sphere/ astig/ MF) | DW |
| Alcon | Focus DAILIES (sphere/ astig/ MF) | DW |
| Alcon | Freshlook One-Day | DW |
| B+L | Biotrue ONEday (sphere/ MF) | DW |
| B+L | SoftLens daily disposable (sphere/ astig) | DW |
| CooperVision | Proclear 1-Day (sphere/ MF) | DW |
| Menicon | Miru 1-Day | DW |
| 2 Week Replacement | | |
| B+L | SoftLens Toric for Astigmatism | EW (7 days) |
| CooperVision | Biomedics XC | DW |
| CooperVision | Proclear EP (MF) | DW |
| Hydrogel Vision | Extreme H ₂ O 59% (Thin / Xtra) | DW |
| Hydrogel Vision | Extreme H ₂ O 54% | DW |

1 Month Replacement

| | | |
|----------------------|-------------------------------------|----|
| CooperVision | Proclear (sphere/toric/MF/MF-Toric) | DW |
| CooperVision | Proclear Multifocal (astig) | DW |
| CooperVision | Proclear Multifocal XR | DW |
| Hydrogel Vision Corp | Extreme H ₂ O 54% toric | DW |
| Hydrogel Vision Corp | Clarity H ₂ O | DW |

FDA Group III (ionic, <50% water)

| 3 months | | |
|-----------|--------------|----|
| Metrosoft | Metro Optics | DW |

FDA Group IV (ionic, >50% water)

| 1 Day Replacement | | |
|--------------------|--|-------------|
| Centennial | BioClear 1 Day (Canada) | DW |
| Centennial/Sauflon | Definition AC Everyday (Canada) | DW |
| CooperVision | Clearsight/Biomedic 1-day (sphere/toric) | DW |
| J&J | 1-Day Acuvue (sphere) | DW |
| J&J | 1-Day Acuvue Moist (sphere/ astig) | DW |
| 2 Week Replacement | | |
| Alcon | Freshlook (sph/ astig) | EW (7 days) |
| CooperVision | Biomedics 55 Premier | EW (7 days) |
| J&J | Acuvue 2 | DW |

1 Month Replacement

| | | |
|--------------|----------------------------------|------------|
| Alcon | Focus Softcolors Monthly | EW (7 day) |
| Centennial | Definition AC (Canada) | DW |
| CooperVision | Frequency 55 (sphere/ astig/ MF) | DW |

FDA Group V (Silicone Hydrogel)

| 1 Day Replacement | | |
|--------------------|------------------------------------|------------|
| Alcon | DAILIES Total 1 | DW |
| J&J | 1-Day Acuvue TruEye | DW |
| Sauflon | Clarity 1 Day (sphere/ astig/ MF) | DW |
| Sauflon | Fresh Day (US) (sphere/ astig/ MF) | DW |
| 2 Week Replacement | | |
| CooperVision | Avaira (US) (sphere/ astig) | DW |
| J&J | Acuvue OASYS (sphere/ astig/ MF) | EW (7 day) |
| Menicon | Premio (sphere/ astig) | EW (7 day) |

1 Month Replacement

| | | |
|--------------|--|-----------------------------|
| Alcon | Air Optix Aqua (sphere/ astig/ MF) | EW (7 day) |
| Alcon | Air Optix Night & Day Aqua | CW (30 day) |
| Alcon | Air Optix Colors | DW |
| B+L | Bausch+Lomb ULTRA | DW |
| B+L | PureVision/PureVision2 (sphere/astig/MF) | CW (30 day) |
| CooperVision | Biofinity (sphere/ astig/ MF) | DW/EW US DW/EW/CW Canada |
| CooperVision | Encore 100 (Canada) (sphere/ astig) | DW |
| LOGIC | Logic Max | DW |
| Sauflon | Clarity 1 month (US) (sphere/ astig/ MF) | DW |
| Sauflon | Clarity elite (US) | DW |

Silicone Hydrogels (SiHy): Sphere

| Silicone Hydrogels: Sphere | | Company | Lens name | material |
|----------------------------|-----------------------|------------------------------|----------------------------|---------------|
| 1-Day | Spherical | ALCON (formerly Ciba Vision) | DAIUES Total 1 | delefilcon A |
| | | J&J | 1-Day Acuvue TruEye * | narafilcon A |
| | | Sauflon (Centennial) | Clariti 1 Day * | somafilcon A |
| | | Sauflon | Fresh Day* (US) | somafilcon A |
| 2 weeks | Spherical | Cooper | Avaira (US) | enfilcon A |
| | | J&J | Acuvue OASYS* | senofilcon A |
| | | Menicon | Premio (Europe) | asmofilcon A |
| 1 month | Spherical | ALCON (formerly Ciba Vision) | Air Optix Aqua | lotrafilcon B |
| | | ALCON (formerly Ciba Vision) | Air Optix Night & Day Aqua | lotrafilcon A |
| | | ALCON (formerly Ciba Vision) | Air Optix Colors | lotrafilcon B |
| | | B+L | Bausch+Lomb ULTRA | somafilcon A |
| | | B+L | PureVision | balafilcon A |
| | | B+L | PureVision 2 | balafilcon A |
| | | Cooper | Biofinity | comfilcon A |
| | | Cooper | Biofinity XR | comfilcon A |
| | | Cooper | Encore 100 * (Canada) | enfilcon A |
| | | LOGIC | Logic Max | unifilcon B |
| Sauflon | Clariti 1 month* (US) | filcon II 3 | | |
| Sauflon | Clariti elite* (US) | somafilcon A | | |

* UV blocker

data provided by companies

| Diam | BC | H ₂ O % | Dk | Dk/t | Modulus | Surface treatment |
|------|---------|--------------------|-----|------|---------|-------------------------------------|
| 14.1 | 8.5 | 33-80 | 140 | 156 | 0.7 | Water gradient SiHy |
| 14.2 | 8.5/9.0 | 46 | 100 | 118 | 0.66 | none - internal wetting agent (PVP) |
| 14.1 | 8.6 | 56 | N/A | 86 | 0.5 | AquaGen |
| 14.1 | 8.6 | 56 | N/A | 86 | 0.5 | AquaGen |
| 14.2 | 8.4/8.5 | 46 | 100 | 125 | 0.5 | aquaforn, PEG |
| 14.0 | 8.4/8.8 | 38 | 103 | 147 | 0.69 | none - internal wetting agent (PVP) |
| 14.0 | 8.3/8.6 | 40 | 129 | 161 | 0.90 | nanogloss |
| 14.2 | 8.6 | 33 | 110 | 138 | 1.0 | plasma treatment |
| 13.8 | 8.4/8.6 | 24 | 140 | 175 | 1.5 | plasma treatment |
| 14.2 | 8.6 | 33 | 110 | 138 | 1.0 | plasma treatment |
| 14.2 | 8.5 | 46 | 114 | 163 | 0.7 | MoistureSeal Technology |
| 14.0 | 8.3/8.6 | 36 | 91 | 101 | 1.1 | plasma oxidation |
| 14.0 | 8.6 | 36 | 91 | 130 | 1.1 | plasma oxidation |
| 14.0 | 8.6 | 48 | 128 | 160 | 0.75 | aquaforn |
| 14.0 | 8.6 | 48 | 128 | 160 | 0.75 | aquaforn |
| 14.2 | 8.4/8.5 | 46 | 100 | 125 | 0.5 | aquaforn |
| 14.2 | 8.6 | 49 | N/A | 68.1 | 0.68 | Advanced Comfort Technology |
| 14.1 | 8.4/8.8 | 58 | N/A | 86 | 0.5 | AquaGen |
| 14.2 | 8.6 | 56 | N/A | 86 | 0.5 | AquaGen |

Dk/t values for -3.00 D

Silicone Hydrogels (SiHy): Toric & Multifocal

| | | Company | Lens name | material |
|--------------|----------------------|------------------------------|---------------------------------|---------------|
| 1-Day | Toric | Sauflon | Clariti 1 Day Toric* (US) | somafilcon A |
| | | Sauflon | Fresh Day for Astigmatism* (US) | somafilcon A |
| | Multifocal | Sauflon (Centennial) | Clariti 1 Day Multifocal* | somafilcon A |
| | | Sauflon | Fresh Day Multifocal* (US) | somafilcon A |
| 2 weeks | Toric | CooperVision | Avaira Toric (US) | enfilcon A |
| | | J&J | Acuvue OASYS for Astigmatism * | senofilcon A |
| | | Menicon | Premio Toric (Europe) | asmofilcon A |
| | Multifocal | J&J | Acuvue Oasys for Presbyopia * | senofilcon A |
| 1 month | Toric | ALCON (formerly Ciba Vision) | Air Optix for Astigmatism | lotrafilcon B |
| | | B+L | PureVision 2 for Astigmatism | balafilcon A |
| | | B+L | PureVision Toric | balafilcon A |
| | | CooperVision | Biofinity Toric | comfilcon A |
| | | CooperVision | Encore 100 Toric * (Canada) | enfilcon A |
| | | Sauflon (Centennial) | Clariti toric* | somafilcon A |
| | Multifocal | ALCON (formerly Ciba Vision) | Air Optix Aqua Multifocal | lotrafilcon B |
| | | B+L | PureVision Multifocal | balafilcon A |
| B+L | | PureVision 2 for Presbyopia | balafilcon A | |
| CooperVision | | Biofinity Multifocal | comfilcon A | |
| | Sauflon (Centennial) | Clariti multifocal* | filcon II 3 | |

* UV blocker

data provided by companies

| Diam | BC | H ₂ O % | Dk | Dk/t | Modulus | Surface treatment |
|------|-----|--------------------|-----|------|---------|-------------------------------------|
| 14.3 | 8.6 | 56 | N/A | 57 | 0.5 | AquaGen |
| 14.3 | 8.6 | 56 | N/A | 57 | 0.5 | AquaGen |
| 14.1 | 8.6 | 56 | N/A | 86 | 0.5 | AquaGen |
| 14.1 | 8.6 | 56 | N/A | 86 | 0.5 | AquaGen |
| 14.5 | 8.5 | 46 | 100 | 91 | 0.5 | aquafom. PEG |
| 14.5 | 8.6 | 38 | 103 | 129 | 0.69 | none - internal wetting agent (PVP) |
| 14.0 | 8.6 | 40 | 129 | 172 | 0.9 | nanogloss |
| 14.3 | 8.4 | 38 | 103 | 147 | 0.69 | none - internal wetting agent (PVP) |
| 14.5 | 8.7 | 33 | 110 | 108 | 1.0 | plasma treatment |
| 14.5 | 8.9 | 36 | 91 | 91 | 1.1 | plasma oxidation |
| 14.0 | 8.7 | 36 | 91 | 91 | 1.1 | plasma oxidation |
| 14.5 | 8.7 | 48 | 128 | 116 | 0.75 | aquafom |
| 14.5 | 8.5 | 46 | 100 | 91 | 0.5 | aquafom |
| 14.4 | 8.7 | 56 | N/A | 57 | 0.5 | AquaGen |
| 14.2 | 8.6 | 33 | 110 | 138 | 1.0 | plasma treatment |
| 14.0 | 8.6 | 36 | 91 | 101 | 1.1 | plasma oxidation |
| 14.0 | 8.6 | 36 | 91 | 130 | 1.1 | plasma oxidation |
| 14.0 | 8.6 | 48 | 128 | 142 | 0.75 | aquafom |
| 14.2 | 8.7 | 55 | N/A | 86 | 0.5 | AquaGen |

Dk/t values for -3.00 D

Daily disposables: Sphere

| | Company | Lens name | material | FDA |
|-----------|------------------------------|---------------------------------|---------------|-----|
| Spherical | ALCON (formerly Ciba Vision) | DAILIES AquaComfort Plus | nelfilcon A | 2 |
| | ALCON (formerly Ciba Vision) | Focus DAILIES | nelfilcon A | 2 |
| | ALCON (formerly Ciba Vision) | Freshlook One-Day | nelfilcon A | 2 |
| | ALCON (formerly Ciba Vision) | DAILIES Total 1 | delefilcon A | 5 |
| | B+L | Biotrue ONEday* | nesofilcon A | 2 |
| | B+L | SoftLens daily disposable | hilafilcon B | 2 |
| | Centennial | Bioclear 1 Day * (Canada) | filcon IV 1 | 4 |
| | Centennial | Clarity 1 Day * (Canada) | filcon II 3 | 5 |
| | Centennial | Definition AC Everyday (Canada) | methafilcon A | 4 |
| | CooperVision | Biomedics 1-Day * | ocufilcon B | 4 |
| | CooperVision | Proclear 1-Day | omafilcon A | 2 |
| | CooperVision | ClearSight 1 Day* (US) | ocufilcon B | 4 |
| | J&J | 1-Day Acuvue * | etafilcon A | 4 |
| | J&J | 1-Day Acuvue Moist * | etafilcon A | 4 |
| | J&J | 1-Day Acuvue TruEye * | narafilcon A | 5 |
| | LOGIC | Logic 1 Day* (Canada) | wetfilcon A | |
| | LOGIC | Logic 1 Day Colours (Canada) | wetfilcon A | |
| | Menicon | Miru 1-Day | hioxifilcon A | 2 |
| | Saflon | Fresh Day* (US) | somofilcon A | 5 |

* UV blocker

data provided by companies

| Diam | BC | H ₂ O % | Dk/t | Specifics |
|-----------|---------|--------------------|------|---|
| 14.0 | 8.7 | 69 | 26 | Triple action moisture (AquaRelease™) |
| 13.8 | 8.6 | 69 | 26 | AquaRelease™ |
| 13.8 | 8.6 | 69 | 26 | blue/gray/green/pure hazel |
| 14.1 | 8.5 | 33-80 | 156 | Water gradient SiHy |
| 14.2 | 8.6 | 78 | 42 | Aspheric, HD optics |
| 14.2 | 8.6 | 59 | 24 | Aspheric, HD optics |
| 14.1 | 8.6 | 56 | 30 | Advanced edge technology + AquaAtract |
| 14.1 | 8.6 | 56 | 86 | Advanced edge technology, aspheric |
| 14.2 | 8.6 | 55 | 30 | Aspheric |
| 14.2 | 8.7 | 52 | 24 | |
| 14.2 | 8.7 | 60 | 37 | Aspheric front surface |
| 12.0-15.0 | 8.0-9.2 | 52 | 17 | |
| 14.2 | 8.5/9.0 | 58 | 26 | Inversion 1-2-3 |
| 14.2 | 8.5/9.0 | 58 | 26 | Inversion 1-2-3, Lacreon technology |
| 14.2 | 8.5/9.0 | 46 | 118 | Inversion 1-2-3 SiHy |
| 14.0 | 8.6 | 58 | 38 | Advanced Comfort Technology (ACT), aspheric |
| 14.0 | 8.6 | 58 | 35 | Advanced Comfort Technology (ACT) |
| 14.2 | 8.6 | 57 | 19 | Aberration control design, Flat pack technology |
| 14.1 | 8.6 | 56 | 86 | AquaGen |

Dk/t values for -3.00 D

Daily disposables: Toric & Multifocal

| | Company | Lens name | material | FDA |
|------------------------------|------------------------------|---|----------------------------|-------------|
| Toric | ALCON (formerly Ciba Vision) | Focus DAILIES Toric | nelfilcon A | 2 |
| | ALCON (formerly Ciba Vision) | DAILIES AquaComfort Plus Toric | nelfilcon A | 2 |
| | B+L | SoftLens daily disposable for Astigmatism | hilafilcon B | 2 |
| | CooperVision | Biomedics 1 Day Toric* | ocufilcon D | 4 |
| | CooperVision | ClearSight 1 Day Toric* (US) | ocufilcon D | 4 |
| | J&J | 1-Day Acuvue Moist for Astigmatism * | etafilcon A | 4 |
| | Sauflon | Clariti 1 Day Toric* (US) | filcon II 3 | 5 |
| | Sauflon | Fresh Day for Astigmatism* (US) | somafilcon A | 5 |
| | Multifocals | ALCON (formerly Ciba Vision) | Focus DAILIES Progressives | nelfilcon A |
| ALCON (formerly Ciba Vision) | | DAILIES AquaComfort Plus Multifocal | nelfilcon A | 2 |
| B+L | | Biotrue ONEday for Presbyopia* | nesofilcon A | 2 |
| CooperVision | | Proclear 1 Day Multifocal | omafilcon A | 2 |
| Sauflon (Centennial) | | Clariti 1 Day Multifocal* (Canada, UK) | somafilcon A | 5 |
| Sauflon | | Fresh Day Multifocal* (US) | somafilcon A | 5 |

* UV blocker

data provided by companies

| Diam | BC | H ₂ O % | Dk/t | Specifics |
|------|-----|--------------------|------|---|
| 14.2 | 8.6 | 69 | 26 | AquaRelease™, double thin zone, cyl 0.75/1.50 |
| 14.4 | 8.8 | 69 | 26 | Triple action moisture (AquaRelease™) |
| 14.2 | 8.6 | 59 | 18 | Aspheric, HD optics, cyl 0.75/1.25/1.75 |
| 14.5 | 8.7 | 55 | 18 | cyl 0.75/1.25/1.75 |
| 14.5 | 8.7 | 55 | 20 | cyl 0.75/1.25/1.75 |
| 14.5 | 8.5 | 58 | 31 | Blink stabilized design, Lacreon technology |
| 14.1 | 8.6 | 56 | 86 | SiHy |
| 14.3 | 8.6 | 56 | 57 | SiHy, AquaGen |
| 13.8 | 8.6 | 69 | 26 | AquaRelease™, center-near aspheric |
| 14.0 | 8.7 | 69 | 26 | Triple action moisture (AquaRelease™) |
| 14.2 | 8.6 | 78 | 42 | Aspheric, HD optics, Hypergel |
| 14.2 | 8.7 | 60 | 37 | Pc technology, aspheric optics |
| 14.1 | 8.6 | 56 | 86 | Center near design |
| 14.1 | 8.6 | 56 | 86 | AquaGen |

Dk/t values for -3.00 D

Soft Multifocals

| | | Company | Lens name | material |
|-----------|-----------|------------------------------|-------------------------------------|---------------------------|
| 1-Day | Spherical | ALCON (formerly Ciba Vision) | Focus DAILIES Progressives | nelficon A |
| | | ALCON (formerly Ciba Vision) | DAILIES AquaComfort Plus Multifocal | nelficon A |
| | | B+L | SoftLens Multi-Focal | polymacon |
| | | B+L | Biotrue ONEday for presbyopia | nesofilcon A |
| | | CooperVision | Proclear 1 Day Multifocal | omafilcon A |
| | | Sauflon (Centennial) | Clarity 1 Day Multifocal * | somofilcon A |
| | | Sauflon (Centennial) | Fresh Day Multifocal* (US) | somofilcon A |
| 2-4 weeks | Spherical | CooperVision | Biomedics/Proclear EP | omafilcon A |
| | | J&J | Acuvue Oasys for Presbyopia* | senofilcon A |
| 1 month | Spherical | ALCON (formerly Ciba Vision) | Air Optix Aqua Multifocal | lotrafilcon B |
| | | B+L | PureVision Multi-Focal | balafilcon A |
| | | B+L | PureVision 2 for Presbyopia | balafilcon A |
| | | Blanchard (Canada) | Multi X | benzG 3X |
| | | CooperVision | Biofinity Multifocal | comfilcon A |
| | | CooperVision | Proclear Multifocal | omafilcon A |
| | | CooperVision | Proclear Multifocal XR | omafilcon A |
| | | Sauflon (Centennial) | Clarity multifocal* | filcon II 3 |
| | | Toric | CooperVision | Proclear Multifocal Toric |

* UV blocker

Data provided by companies

| Diam | BC | Add | Type |
|------|---------|-----------------------------------|---|
| 13.8 | 8.6 | prog add to +3.00 | center-near aspheric, AquaRelease |
| 14.0 | 8.7 | add: low, med, high | |
| 14.5 | 8.5/8.8 | low: <+1.50, high: +1.75-2.50 | center-near design, front surface aspheric |
| 14.2 | 8.6 | | Aspheric, HD optics, Hypergel |
| 14.2 | 8.7 | add: +1.00 to +2.50 | Aspheric, center near |
| 14.1 | 8.6 | low: <+2.25, high: +2.25-3.00 | center near design, aspheric back surface |
| 14.1 | 8.6 | low: <+2.25, high: +2.25-3.00 | center near design |
| 14.4 | 8.7 | add: +1.25 | center distance, aspheric intermediate and near |
| 14.3 | 8.4 | add: low, med, high | center distance, with zonal aspheric stereo precision |
| 14.2 | 8.6 | add: low, med, high | |
| 14.0 | 8.6 | low: +1.50, high +1.75 to +2.50 | center near aspheric optics |
| 14.0 | 8.6 | low: +0.75-1.50, high: +1.75-2.50 | center near aspheric optics |
| 14.5 | 8.8/9.1 | add: up to +2.25 | S-form progression profile |
| 14.0 | 8.6 | add:+1.00 to +2.50 | D and N lens |
| 14.4 | 8.7 | add: +1.00 to +2.50 | D and N lens |
| 14.4 | 8.4/8.7 | add: +1.00 to +4.00 | D and N lens |
| 14.2 | 8.7 | low: <+2.25, high: +2.25-3.00 | center near design, aspheric back surface |
| 14.4 | 8.4/8.8 | add: +1.00 to +4.00 | D and N lens, cyl up to 5.75 |

Soft Contact Lens Care

Multi Purpose Solution

| Trade Name | Manufacturer | Disinfectant/ Preservative |
|---------------------------|--------------|---|
| Biotrue | B+L | PHMB 0.00013%, Polyquarternium 0.0001% |
| Complete Easy Rub Formula | AMO | PHMB 0.0001% |
| OPTI-FREE Express | ALCON | Polyquad 0.001%, Aldox 0.0005% |
| OPTI-FREE PureMoist | ALCON | Polyquad 0.001%, Aldox 0.0006% |
| OPTI-FREE RepleniSH | ALCON | Polyquad 0.001%, Aldox 0.0005% |
| renu fresh | B+L | PHMB 0.0001% |
| renu sensitive | B+L | PHMB 0.00005% |
| RevitaLens OcuTec | AMO | Polyquarternium-1 0.0003%, Alexidine 0.00016% |
| Sauflon All in One Lite | Sauflon | Polyhexanide 0.0001% |
| SoloCare Aqua (Canada) | Menicon | Polyhexanide 0.0001%, ED 0.025% |

PHMB: polyhexamethylene biguanide

Peroxide

| Trade Name | Manufacturer | Disinfectant/ Preservative |
|--------------------------|--------------|----------------------------------|
| AOSsept Plus* (Canada) | ALCON | 3% H ₂ O ₂ |
| Clear Care* | ALCON | 3% H ₂ O ₂ |
| Oxysept UltraCare | AMO | 3% H ₂ O ₂ |
| One Step (US) | Sauflon | 3% H ₂ O ₂ |
| Ocusoft Lens Care System | Ocusoft | 3% H ₂ O ₂ |
| PeroxiClear* | B+L | 3% H ₂ O ₂ |

* compatible with GP lenses

| Wetting agent | Buffer | Other |
|-----------------------------|---|-----------------------------------|
| Hyaluronan, poloxamine | Sodium borate/Boric acid | EDTA, pH 7.5 |
| Poloxamer 237 | Phosphate | EDTA |
| Tetronic 1304 | Sodium Citrate | EDTA (chelating agent) |
| HydraGlyde, Tetronic 1304 | Boric acid | EDTA (chelating agent) |
| TearGlyde | Sodium Borate | Designed for SiHy lenses |
| Poloxamine (surfactant) | Sodium borate/Boric acid | EDTA, HYDRANATE (chelating agent) |
| Poloxamine (surfactant) | Sodium borate/Boric acid | EDTA |
| Tetronic 904 (surfactant) | Sodium borate decahydrate/ Boric acid | EDTA (chelating agent) |
| poloxamer | Sodium phosphate | EDTA (chelating agent) |
| Dexpanthenol, Poloxamer 407 | Tromethamine phosphate, Sodium dihydrogen phosphate | NaCl, disodium hydrogen phosphate |

| Wetting agent | Buffer | Other |
|---------------|-----------------|---|
| | Phosphate | Platinum disk |
| | Phosphate | Platinum disk, pluronic 17R4 |
| | Phosphate | Neutralizing tablet (catalase, hydroxypropyl methylcellulose, cyanocobalamin) |
| Poloxamer | Phosphate | Platinum disk |
| | Phosphate | Platinum disk |
| Poloxamer 181 | Phosphonic acid | Platinum disk, triple-moist technology (PG, carbamide, poloxamer 181) |

Gas Permeable Lens Design

Bennett Method

Gas Permeable Base Curve Selection (Minus Lenses)

| Corneal Cylinder | Base Curve |
|------------------|--------------------|
| plano - 0.50D | 0.50 - 0.75D Flat |
| 0.75 - 1.00D | 0.25 - 0.50D Flat |
| 1.25 - 1.50D | On K - 0.25 Flat |
| 1.75 - 2.00D | 0.25D Steep |
| 2.25 - 2.50D | 0.50D Steep |
| 2.75 - 3.00D | 0.50 - 0.75D Steep |

For plus lenses fit 0.25-0.50D steeper than those recommended for minus lenses.

| Tetracurve Design | Tricurve Design |
|-------------------|-----------------|
|-------------------|-----------------|

> 8.8mm OAD

< 8.8mm OAD

SCR = BCR + 0.8mm/0.3mm

SCR = BCR + 1.0mm/0.3mm

ICR = SCR + 1.0mm/0.2mm

PCR = SCR + 2.0mm/0.3mm

PCR = ICR + 1.4mm/0.2mm

Both should be blended medium ideally

OAD of 8.4-8.8 for >45.50D K reading and decrease OZD

OAD of 9.4-9.6 for <41.50D K reading and increase OZD

Adjustments of Base Curve and Power

0.25 D change in Power for each BC change of 0.05mm

SAM (Steeper Add Minus) or FAP (Flatter Add Plus)

Flatten BC 0.25D (0.05mm) for each increase in OAD & OZ of 0.5mm

Steepest BC 0.25D (0.05mm) for each decrease in OAD & OZ of 0.5mm

Gas Permeable Lens Design

Mid K Method

| | | | |
|-------|-----------------------|-----------------------|-----------------------|
| OAD | 8.5mm | 9.0mm | 9.5mm |
| BC | avg K | avg K - 0.50D | avg K - 1.00D |
| OZ | 7.3mm | 7.8mm | 8.3mm |
| ICR/W | BC + 1.0mm/0.2 | BC + 1.0mm/0.2 | BC + 1.0mm/0.2 |
| PCR/W | BC + 3.0 to 5.0mm/0.4 | BC + 3.0 to 5.0mm/0.4 | BC + 3.0 to 5.0mm/0.4 |
| | 10.50/0.4 | 11.25/0.4 | 12.25/0.4 |

K > 45.50 use smaller OAD

K < 41.50 use larger OAD

GP Center Thickness Estimation (non-ultrathin designs)

| Power | 20 to 49 Dk | 50+ Dk |
|--------|-------------|--------|
| -1.00 | 0.18 | 0.19 |
| -2.00 | 0.16 | 0.18 |
| -3.00 | 0.14 | 0.16 |
| -4.00 | 0.14 | 0.15 |
| -5.00 | 0.13 | 0.14 |
| >-6.00 | 0.13 | 0.14 |

Rules of Thumb

Increase center thickness 0.02mm for high Dk materials

Increase center thickness 0.02mm for each diopter of corneal astigmatism

Plus lenticular for >5.00 and minus lenticular for -1.50 into plus powers, CN bevel for -4.00 to -6.00

GP Material Guide

| Name | Type | DK | W.A. | R.I. | S.G. |
|---------------------|------|------|------|-------|------|
| Alberta Lens S* | SA | 66 | 8.6 | 1.475 | 1.13 |
| Alberta Lens SM-2* | SA | 45 | 9.0 | 1.48 | 1.12 |
| Accucon | FSA | 25 | <25 | 1.46 | 1.16 |
| Boston II | SA | 12 | 20 | 1.47 | 1.13 |
| Boston IV | SA | 19 | 17 | 1.47 | 1.10 |
| Boston EO* | FSA | 58 | 49 | 1.43 | 1.23 |
| Boston Equalens* | FSA | 47 | 30 | 1.44 | 1.19 |
| Boston Equalens II* | FSA | 85 | 30 | 1.42 | 1.24 |
| Boston ES* | FSA | 18 | 52 | 1.44 | 1.22 |
| Boston XO* | FSA | 100 | 49 | 1.42 | 1.27 |
| Boston XO2* | FSA | 141 | 38 | 1.42 | 1.19 |
| Flosi* | FSA | 26 | 23.5 | 1.46 | 1.12 |
| Fluorex 300 | FSA | 30 | 12.6 | 1.47 | 1.11 |
| Fluorex 500 | FSA | 50 | 13.3 | 1.46 | 1.11 |
| Fluorex 700 | FSA | 70 | 15.3 | 1.46 | 1.10 |
| Fluorperm 30 | FSA | 30 | 12.8 | 1.47 | 1.14 |
| Fluorperm 60 | FSA | 60 | 14.7 | 1.45 | 1.15 |
| Fluorperm 92 | FSA | 92 | 16 | 1.45 | 1.10 |
| Fluorperm 151 | FSA | 151 | 42 | 1.42 | 1.10 |
| Hybrid FS | FSA | 31 | 0 | 1.45 | 1.18 |
| Hydro2 | FSA | 50 | <5 | 1.46 | 1.15 |
| Menicon Z* | FSA | >163 | 24 | 1.44 | 1.20 |
| ONSI-56* | FSA | 56 | 7.2 | 1.45 | 1.21 |
| OP-2 | FSA | 15.9 | 17 | 1.47 | 1.12 |
| OP-3 | FSA | 30 | 21 | 1.46 | 1.12 |
| OP-6 | FSA | 60 | 26 | 1.45 | 1.11 |
| OP-10 | FSA | 97 | 23 | N/A | 1.13 |
| O-Perm F30 | SA | 31 | <25 | 1.47 | 1.09 |
| O-Perm F60 | FSA | 62 | 19.2 | 1.45 | 1.13 |
| Optacryl 60 | SA | 18 | 25 | 1.47 | 1.13 |

| Name | Type | DK | W.A. | R.I. | S.G. |
|------------------|------|-----|------|------|------|
| Optimum Classic* | FSA | 26 | 12 | 1.45 | 1.19 |
| Optimum Comfort* | FSA | 65 | 6 | 1.44 | 1.17 |
| Optimum Extra* | FSA | 100 | 3 | 1.43 | 1.16 |
| Optimum Extreme* | FSA | 125 | 6 | 1.43 | 1.15 |
| Optimum HR 1.51* | FSA | 50 | 33 | 1.51 | 1.04 |
| Optimum HR 1.53 | FSA | 26 | 42 | 1.53 | 1.04 |
| Paragon HDS* | FSA | 58 | 14.7 | 1.45 | 1.16 |
| Paragon HDS HI* | FSA | 22 | 44 | 1.54 | 1.12 |
| Paragon HDS 100* | FSA | 100 | 42 | 1.44 | 1.10 |
| Paragon Thin* | FSA | 29 | 12.8 | 1.46 | 1.14 |
| Paraperm EW | SA | 56 | 26 | 1.47 | 1.07 |
| Paraperm O2 | SA | 16 | 23 | 1.47 | 1.12 |
| SA 18* | SA | 18 | <25 | 1.49 | 1.13 |
| SA 32* | SA | 32 | <25 | 1.47 | 1.10 |
| SGP I | SA | 22 | <30 | 1.48 | 1.13 |
| SGP II | SA | 44 | <30 | 1.47 | 1.13 |
| SGP 3 | FSA | 44 | <20 | 1.48 | 1.13 |
| Spart-Sight (30) | FSA | 30 | 12.0 | 1.47 | 1.14 |
| Tyro 97* | FSA | 97 | 23 | 1.44 | 1.19 |
| PMMA | XXX | 0 | 18 | 1.49 | 1.20 |

SA = Silicone Acrylate
 FSA = Fluorosilicone Acrylate
 N/A = Not Available
 * = UV Blocker

W.A. = Wetting Angle
 R.I. = Refractive Index
 S.G. = Specific Gravity

Specialty: Large Diameter

| Trade Name | Manufacturers | Diameter (mm) |
|-----------------------------------|---|------------------------------------|
| Atlantis | X-Cel | 15-16.5 |
| AVT Scleral | Advanced Vison Technologies | 16.1-17.1 |
| Comfort SL | Accu Lens, Inc | 16.2 |
| Custom Stable | Valley Contax | 14.8, 15.8, 16.8, 17.8 |
| Custom Stable Elite | Valley Contax | 14.8-16.8 |
| Custom Stable NEAR | Valley Contax | 14.8-16.8 |
| Digiform 15 (RK1, K1, N1, G1, L1) | Tru-Form Optics, Inc. | 15 (Custom avail.) |
| Digiform 18 | Tru-Form Optics, Inc. | 18.0 (Custom avail.) |
| Dyna Semi-Scleral | Lens Dynamics, Inc. | 13.5, 14.0, 14.5, 15.0, 15.5, 16.0 |
| Europa | Visionary-Optics | 16, 18 and 20 |
| Perimeter | Essilor Contact Lens, ABBA Optical Inc. | 14.0-14.8 |
| ICD 16.5 | ABB Optical Group, Valley Contax | 16.5 |
| iSight | GP Specialists | 14.2-24 |
| Jupiter Scleral | Essilor Contact Lens, ABBA Optical Inc., Visionary-Optics | 15.0 - 20.2 |
| Jupiter + Scleral | Essilor Contact Lens | 15.0 - 20.2 |
| Maxim | Accu Lens, Inc | Many Different |
| Mini-Scleral | ABB Optical Group | only to 12.5 |
| MSD | Blanchard Contact Lens | 15.8 and 18.0 |
| NormalEyes 15.5 | Paragon | 15.5 |
| One Fit Cone | Blanchard | 13.8-14.9, 14.3 Standard |
| One Fit P-A | Blanchard | 13.8, 14.3, 14.6 (Standard), 14.9 |
| Puresite Semi-scleral | Deiversified Ophthalmics, Inc. | 14.0-16.0 |
| Rose K2 XL | ABB Optical Group, Art Optical, Blanchard, Valley Contax, X-Cel | 13.6-15.6 (14.6 standard) |
| Semi-Scleral | ABBA Optical Inc. | 13.5 |
| SoClear | Art Optical | 13.0-15.0 |
| TruScleral | Tru-Form Optics, Inc. | 18.0 |
| ZenLens | Alden | 16 and 17 |

| Base Curve/SAG | Specifics |
|--|--|
| 6.5-9.0 | Boston XO and XO2 |
| Many | Contamac materials |
| Many | Designed for normal conrears |
| Any BC/SAG | Boston XO and XO2, front cylinder toric, laser markings standard |
| Toric PC and/or Front Toric | Boston XO, and XO2, toric landing zone of delta 100-400 um laser markings standard |
| Any BC/SAG with Center Near | Boston XO and XO2, stable multifocal, near zone laser markings standard |
| Any | Bitoric, bifocal availability, quadrant specific available, Laser Markings available |
| Any | Bitoric, bifocal availability, quadrant specific available, Laser Markings available |
| 5.5 to 8.5 (in .05 steps) | Quad Sym if needed |
| Any | Front Toric/Back Toric/Lens Notching/Complete Parameter customization |
| 7.0-7.8 (OZ) | Boston XO2 Risk free lenses fit from trial set and customized for each patient |
| Based on Sagittal Depth | Fitting set available / online information available. |
| 5.50-9.50 | Multifocal available |
| With/ Without reverse geometry | Fit from trial set and customized for each patient |
| With/ Without reverse geometry | Fit from trial set and customized for each patient-up to +1.75 |
| Many | Custom made |
| Any BC | |
| 360-580 microns | Midperipheral zone (decrease, standard, increase, double increase)Available in front toric |
| 5.8-10.5 | HDS 100, Available in 72 or 21 lens sets |
| 5.90, 6.10, 6.30 to 7.4 (in 0.10 inc.) | Tyro97, Boston XO/ XO2 |
| 6.70 - 8.50 mm (in 0.10 inc.) | Front toric and multifocal (Fixed +2.25 add) |
| 5.50-7.90 (.20 steps) | 13 lens fitting set |
| 5.80-8.40 | 16 lens fitting set |
| Any BC | Loaner sets available |
| Any BC (9.5-5.83) | Fitting set strongly recommended - multiple fitting options - presbyopic available |
| Any | Radial Venting |
| 3500 to 6700 microns | Edge profiles from steep 3 to Flat 3 |

Specialty: Kone

| Trade Name | Lens Material | Diameter | Base Curve |
|------------------------|----------------------------------|--------------------------|----------------------------------|
| ABBA-Kone | Any | Made to order | Made to order |
| AccuKone | Any | 8.4/ 9.0 | Made to order |
| ACL Kera | Any | Made to order | Made to order |
| Art Keratoconic System | Any | Made to order | Made to order |
| AO Kone | Any | 8.0-10.6 | 5.0-8.0 |
| Apex | Boston XO | 7.9-10.3 | 4.96-8.44 |
| APK | Any | Made to order | Made to order |
| Aspheric Cone | Any | Made to order | Made to order |
| Aspherix K | All Boston materials and Aquasil | Made to order | Made to order |
| B-cone | Any | 6.0-10.8 | 4.5-12.0 |
| Boston Envision | Boston ES, EO, XO, XO2 | 9.3-10.3 | 7.00-8.30 |
| Burger | Any | Made to order | Made to order |
| C5 | Any | Made to order | Made to order |
| Cak | Any | Made to order | Made to order |
| CarterKone | Any | Made to order | Made to order |
| C-Cone | Any | 6.0-10.8 | 4.85-9.8 |
| CentroCone | Any | 9.0 (standard) 8.6 / 8.2 | 5.3 - 7.6 |
| CentroCone Bi-Symmetry | Any | 9.0 (standard) 8.6 / 8.2 | 5.3 - 7.6 |
| Centra PGA - Cone | Any | 8.2 - 10.5 | 4.0 - 8.0 |
| C Kone | Any | Made to order | Made to order |
| CLCK | Any | Made to order | Made to order |
| Clear Kone | Hybrid | 14.5 | Made to order (Vault 100-600) |
| Comfort Kone | Any | 7.8 - 9.5 | Made to order |
| Con-Cise | Any | Made to order | Made to order |
| Conforma-K | Any | 8.5-9.5 | 5.0 - 6.9 |

| Trade Name | Lens Material | Diameter | Base Curve |
|---------------------|------------------------------|------------------------------------|--------------------|
| Conoid | Any | 8.2 - 10.4 | 4.0 - 8.0 |
| CVC | Any | Made to order | Made to order |
| Dyna Cone Plus | Any | 8.0 - 9.9 | 4.5 - 9.5 |
| Dyna Intra-Limbal | Any | 10.0-12.2 (Standard 11.2) | 5.6-10.25 |
| Dyna Z Cone + | Any | Made to order | Made to order |
| E Kone | Any | Made to order | Made to order |
| ESC-K | Any | 8.5-9.5 | 5.0 - 6.9 |
| G.B.L. | Any | 11.2 (Standard) / Custom | 6.49-9.38 |
| GL-Cone | Any | Made to order | Made to order |
| Horizon Kone | Boston ES, EO, XO | 7.5-9.5 (0.5 steps) | 4.5-8.4 |
| HydroKone | Hioxifilcon A/ Methafilcon A | 12.0 - 17.0 | 4.1 - 9.3 |
| IKone | Boston XO | 8.8, 9.6, 10.4 | Made to order |
| KBA | Optimum | 6.0-10.8 | 3.5-11.0 |
| KeraSoft 2 | Hioxifilcon | 14.0, 14.5, 15.0 | 8.0, 8.2, 8.4, 8.6 |
| KeraSoft 3 | Silicone hydrogel | 14.0, 14.5, 15.0 | 8.0, 8.2, 8.4, 8.6 |
| KeraSoft IC | Silicone hydrogel | 14.0 - 15.5 | 7.4 - 9.4 |
| K-Max | Onsi 56 | 11.5, 12.0, 12.5 | Made to order |
| Kone | Any | Made to order | Made to order |
| Ksphere | Any | Made to order | Made to order |
| K Vault | Any | 11.0 | Made to order |
| McGuire Cone | Any | Made to order | Made to order |
| Ni-cone | Any | Made to order | Made to order |
| NovaKone | Hioxifilcon D | 15.0 (standard) / Made to order | Made to order |
| One Fit keratoconus | Tyro97, Boston XO/ XO2 | 13.8/ 14.3/ 14.6 | 6.9 - 8.5 |

Specialty: Kone

| Trade Name | Lens Material | Diameter | Base Curve |
|----------------------|--|---------------|--------------------------------|
| Opal Cone | Any | 9.0 - 10.5 | 5.0 - 11.0 |
| Pro-ECC | Any | Made to order | Made to order |
| QuadraKone | Any | Made to order | Made to order |
| Rose K | Any | Made to order | Made to order |
| Rose K2 | Any | Made to order | Made to order |
| Rose K2 IC | Any | Made to order | Made to order |
| Rose K2 NC | Any | Made to order | Made to order |
| Rose K2 PG | Any | Made to order | Made to order |
| S-cone | Any | 7.0-11.0 | 5.4-10.6 |
| SK 2000 | Any | Made to order | Made to order |
| SoClear Asphere Cone | Boston XO, XO2, Optimum Extra, HDS 100 | 13.0-15.0 | 5.85-9.00 |
| Soper Cone | Any | Made to order | Made to order |
| SPH-K | Any | 8.5 - 10.0 | 5.0 - 8.0 |
| Super Cone | Any | Made to order | Made to order |
| Synergeyes KC | Hybrid | 14.5 | 5.7 - 7.10 |
| System 10 | Any | 5.65 - 10.25 | 4.82 - 7.34 |
| Tru-Kone | Boston materials | 7.5-10.3 | 4.8-8.2 |
| Tru-PMD | Boston materials | Made to order | Made to order |
| Ultima-K | Any | Made to order | Made to order |
| Ultrahealth | Hybrid | 14.5 | Made to order (Vault 50 - 550) |
| VKone | Any | Made to order | Made to order |
| Verage | Any | 8.7 | Made to order |
| VIP Cone | Any | Made to order | Made to order |
| X Kone | Any | Made to order | Made to order |

Specialty: Ortho-K

| Trade Name | Lens Material | Diameter | Base curve |
|-----------------------|---------------------------------|---------------------------|-----------------------------|
| BE Retainer | Boston Equalens II | Made to order | Made to order |
| CKR | Boston Equalens II | Made to order | Made to order |
| Dreamlens | Boston XO, XO2, Equalens II | Made to order | Made to order |
| Emerald | Boston XO, Equalens II | 9.8 - 10.6 mm | Made to order |
| Jade | Boston XO, Equalens II | 9.8 - 11.4 mm | Made to order |
| MiraLens | Boston Equalens II | Made to order | Made to order |
| NightMove | Boston equalens II | Made to order | Made to Order |
| OK Series | Boston XO | 8.0 - 12.2 mm | Made to order |
| Orthofocus | Boston XO, Equalens II | Made to order | Made to order |
| Ortho Tool | Paragon HDS 100 | 7.0 - 12.0 (0.5 mm steps) | 6.5 - 10.5 mm |
| Paragon CRT Dual Axis | Paragon HDS, HDS 100 | 10.5 mm & 11.0 mm | Made to order (0.1mm steps) |
| Paragon CRT RG4 | Paragon HDS 100 | 10.0-12.0 (0.5mm steps) | Made to order (0.1mm steps) |
| Paragon CRT Standard | Paragon HDS, HDS 100, Menicon Z | 10.0-12.0 (0.5mm steps) | Made to order (0.1mm steps) |
| Super Bridge/E-Lens | Boston Equalens II | Made to order | Made to order |
| Vipak | Boston Equalens II | Made to order | Made to order |
| Wave | Boston Equalens II | Made to order | Made to order |

Specialty: Hybrid

| Trade Name | Lens Materials | Diameter | Base Curve |
|-----------------------|--|----------|--------------------------------|
| Duette HD/Prog/MF | Petrafocon A (center) / Hem-Iarafilcon A (skirt) | 14.5 mm | 7.1 to 8.3 (in .2mm steps) |
| UltraHealth | Petrafocon A (center) / Hem-Iarafilcon A (skirt) | 14.5 mm | Vaults: 50-550 (in 50 μ steps) |
| ClearKone | Paflufocon D (center) / Hem-Iberfilcon A (skirt) | 14.5 mm | Vaults: 50-700 (in 50 μ steps) |
| SynergEyes A | Paflufocon D (center) / Hem-Iberfilcon A (skirt) | 14.5 mm | 7.0 to 8.2 (in .1mm steps) |
| SynergEyes KC | Paflufocon D (center) / Hem-Iberfilcon A (skirt) | 14.5 mm | 5.3 to 7.1 (in .2mm steps) |
| SynergEyes Multifocal | Paflufocon D (center) / Hem-Iberfilcon A (skirt) | 14.5 mm | 7.0 to 8.2 (in .1mm steps) |
| SynergEyes PS | Paflufocon D (center) / Hem-Iberfilcon A (skirt) | 14.5 mm | 7.2 to 9.0 (in .2mm steps) |

Gas Permeable CL care (soaking and disinfection)

| Trade Name | Manufacturer | Preservative | Wetting agent / Other |
|-----------------------|--------------|--|--|
| Boston Advance System | B+L | DYMED, Chlorhexidine gluconate, ED | Cleaner: alkyl ether sulfate, ethoxylated alkyl phenol, tri-quaternary cocoa based phospholipid, silica gel, titanium dioxide Conditioner: PVA, PEG |
| Boston Simplus | B+L | DYMED, Chlorhexidine gluconate | HPMC, poloxamine, hydroxyalkylphosphonate, boric acid, sodium borate, glucam |
| Menicare GP (USA) | Menicon | Benzyl alcohol 0.3%, ED 0.5% | Lauryl Sulfate Salt of imidazoline octylphenoxypolyethoxyethanol |
| Optimum GP System | Contamac US | Benzyl alcohol, BAC | Sodium bisulfite |
| Unique pH (USA) | Menicon | Polyquad 0.0011%, ED 0.01% | HP Guar, Boric acid, Tetric 1304, Poloxamine, PG, PEG |

DYMED: Polyaminopropyl Biguanide
ED: Edetate disodium
HPMC: Hydroxypropylmethyl cellulose

PEG: Polyethylene glycol
PG: Propylene glycol
PVA: Polyvinyl alcohol

Useful Contact Lens websites

Companies

- www.abbcconise.com
- www.abbott.com
- www.aculens.com
- www.acuvueprofessional.com
- www.alcon.com
- www.allergan.com
- www.artoptical.com
- www.bausch.com
- www.blanchardlab.com
- www.contamac.com
- www.coopervision.com
- www.essilorcontacts.com
- www.lensdynamics.com
- www.meniconamerica.com
- www.oculususa.com
- www.paragonvision.com
- www.sauflonusa.com
- www.specialeyesqc.com
- www.synergeyes.com
- www.tfoptics.com
- www.theratears.com
- www.valleycontax.com
- www.visionary-optics.com
- www.walman.com

Organizations

- www.aaa.org/x4783.xml (AOA-CL)
- www.aaopt.org (AAO)
- www.aocle.org (AOCLE)
- www.bcla.org.uk (BCLA)
- www.brienholdenvision.org (IER grading scales)
- www.claa.org (CLAO)
- www.clsa.info (CLSA)
- www.gpli.info (GPLI)
- www.iacle.org (IACLE)
- www.sclerallens.org
- www.sjogrens.org
- www.tearfilm.org (TFOS)

Patient info

- www.aaa.org/contact-lenses.xml
(AOA consumer page)
- www.aaa.org/dry-eye.xml (Dry Eye)
- www.contactlenses.org
- www.contactlensesafety.org
- www.fda.gov/medicaldevices/productsandmedicalprocedures/homehealthandconsumer/consumerproducts/contactlenses/default.htm (Contact Lenses)
- www.mayoclinic.com/health/dry-eyes/ds00463
(Dry Eye)
- www.mycontactlenses.org
- www.nei.nih.gov/health/dryeye/index.asp (Dry Eye)
- www.nkcf.org (Keratoconus)

Publications

- <http://eyetubeod.com/> (Advanced Ocular Care)
- <http://journals.lww.com/corneajml/> (Cornea)
- www.claojournal.org (Eye & CL)
- www.clspectrum.com
- www.contactlensjournal.com (CL & Ant Eye)
- www.contactlensupdate.com
- www.journals.elsevier.com/the-ocular-surface/
- www.optvissci.com (OVS)

References

- <http://commons.pacificu.edu/mono/4/>
- <http://softspecialiedition.com/>
- www.eyedock.com
- www.odspeccs.com
- www.opted.org (ASCO residency website)
- www.staininggrid.com
- www.tearfilm.org/dewsreport (DEWS report)
- www.tearfilm.org/mgdworkshop (MGD report)
- www.tearfilm.org/ffos_cld_report.php
(CL Discomfort report)



would like to thank all of its sponsors
for its support and commitment
towards contact lens education

SPONSORS

ABB Optical
Advanced Vision Research
Alcon
Allergan
Art Optical
Bausch + Lomb
Blanchard Laboratories
Contamac US
CooperVision
Essilor Contact Lenses
Paragon
SynergEyes
The Vision Care Institute, LLC
TruForm Optics
Valley Contax
Visionary Optics