



CHROMAGEN™

SEE THE COLOURS, READ THE WORDS

PRODUCT SPECIFICATION - CONTACT LENSES

Material	Contamac GMA Filcon II 2
Water Content	58%
Permeability (Dk)	26
Base Curve mm	6.60 to 10.40 (0.10 steps)
Diameter mm	11.00 to 17.00 (0.50 steps)
Available Base Curves and Diameters are restricted by material Please refer to our Material Parameters sheet for available sizes	
Power Range 0.25D steps	-30.00D to +30.00D (0.25D steps)
Cyl Powers	-6.00DC to -0.75 DC (0.25DC steps)
Axis Direction	5° to 180° (5° steps)
Pupil Diameter	3.50mm to 9.00mm (0.5mm steps)
Filters	Aqua 1, 2, 3/Blue 1/Green 1/Magenta 1, 2, 3/Orange 6, 8/Pink 1, 2, 3 /Red/Violet 1, 2, 3/ Yellow 2

PRODUCT SPECIFICATION - SPECTACLE LENSES

Material	Standard CR39 (Hi-index materials available on request)
Lens Type	Single Vision, Bifocals, Multifocals Supplied as uncuts or frames can be sent in with order to be glazed
Filters	Aqua, Blue, Green, Magenta, Orange, Pink, Red, Violet, Yellow

Features

Portable kit, can be moved from practice to practice, or can be taken into schools.
No machines needed.
Can be supplied as spectacles or contact lenses.
The same diagnostic system is used for both Colour Deficient and ASD patients.

Can help with the following conditions:

- Colour deficiency
- Academic Skills Disorder (ASD) which includes Dyslexia

And in some cases

- Dyspraxia
- Migraines

CHROMAGEN™ ASSESSMENT GUIDE - ASD CHROMAGEN™ ASSESSMENT GUIDE – COLOUR DEFICIENCY

Ensure that the patient has had a full up to date eye examination.

Take history & symptoms.

Establish dominant eye. The patient should wear any correction they use for general or near vision.

Carry out the Wilkins rate of reading test, using version A/B initially. This test is an objective way of assessing the effect of visual rather than linguistic factors on reading. The test assesses reading speed and errors by calculating the number of words read correctly aloud in a minute. It consists of 10 closely spaced lines of nonsensical text. Each line is composed of 15 words that occur with a very high frequency in the English language, making the test suitable from a young age. The words are not in sentences so that the patient cannot guess what is coming next. Wilkins also designed it this way to reduce patient anxiety; however, be sensitive as reading aloud for the patient can be challenging, especially in front of someone they are not familiar with. Advise the patient that they should try to avoid using their finger as a marker. Missed and added words should be noted. If the patient re-reads a line then you do not need to adjust the score as they have effectively given themselves a time penalty. If they lose their space it may be necessary to stop the clock and point out their position to get them back on track. They will be timed over a period of two minutes, the number of words they read can then be divided by two to gain their WPM (words per minute) score. If they manage to read all of version A, they should then be instructed to continue reading version B.

The patient should then be asked to look at the words (with both eyes), whilst each filter is presented in front of the non-dominant eye, and they should be asked if the print is better, the same or worse. The filters should be categorised accordingly, and selection narrowed down until one filter remains. The chosen filter should be left in front of the non-dominant eye whilst the same procedure is carried out for the dominant eye.

With both the chosen filters in front of the patient's eyes, ask them to read the Wilkins rate of reading Version C/D. A different version is used for the rare occasion that the patient has a photographic memory. Once again they are timed over two minutes. As well as noting the words per minute score, pay attention to the clarity and confidence of the reading; often this will be greatly improved even if the WPM remains unchanged. For young patients this will be something that parents often comment on.

The ChromaGen™ filters can then be prescribed and dispensed as either spectacle lenses or contact lenses. Please see the ChromaGen™ contact lens fitting guide.

Ensure that the patient has had a full up to date eye examination.

Take history & symptoms.

Establish dominant eye.

The patient should wear any correction they have for general or near vision.

Work through the Ishihara test plates, making a note of the plates that the patient cannot read or struggles with.

Each filter should be presented in front of the non-dominant eye and the Ishihara test carried out again, to establish which filter enhances the most number of plates. The best filter should be left in front of the non-dominant eye and the same test carried out for the dominant eye.

The ChromaGen™ filters can then be prescribed and dispensed as either spectacle lenses or contact lenses. Please see the ChromaGen™ contact lens fitting guide.

DIAGNOSTIC KITS AVAILABLE

- Full diagnostic system - includes 2 each of every colour of the metal filters which fit into a trial frame and 25 contact lenses. The cost of this system also includes a day of training.
- Teachers kit plastic filters - includes 2 each of every colour of hand held plastic filters.
- Teachers kit metal filters - includes 2 each of every colour of the metal filters which are designed to fit into a trial frame.
- Teachers kit with both metal and plastic filters.



Full Diagnostic System



Teachers Kit with Plastic & Metal

FITTING PROCEDURE

- ChromaGen™ Assessment to determine filter colours required.
- Full refraction and eye examination.
- Keratometry.

Lens Selection




- Trial lens can either be selected from the full ChromaGen™ diagnostic system, or lens with exchange facility can be ordered from Cantor & Nissel.
- All of the trial lenses in the diagnostic system are
Base curve: 8.60 Diameter: 14.50 Power: Plano,
however, any parameters can be ordered from the range available.
- Select diameter 2-3mm larger than HVID.
- Select base curve based on K readings.

- Order power calculated from spectacle Rx and adjusted for BVD. Please contact us if help is needed with conversions or with toric prescriptions.
- Initial tint selection should be the lightest density available for each eye. Sometimes a darker density will be necessary to achieve the same results as with the spectacle filters. Occasionally the patient can manage with one contact lens only, which is usually fitted in the non-dominant eye. However this is not always the case and some patients do prefer a single lens in the dominant eye.
- Pupil diameter should be selected so that it covers the whole pupil even in low illumination. The trial lenses in the diagnostic system have a variety of pupil diameters. Additional diameters can be ordered from the range available.

Lens Diameter (mm)	Steep K's ≤ 7.75mm	Average K's 7.80mm – 8.35mm	Flat K's ≥ 8.40
	Order base curve flatter than flattest K by (mm):		
13.00 & 13.50	0.7	0.3	0.2
14.00 & 14.50	1.1	0.7	0.6
15.00 & 15.50	1.5	1.1	1.0

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Lens Fit

Characteristic	Good Fit	Steep Fit	Flat Fit
Comfort	Good	Good initially	Poor
Centration	Good	Often good	Often poor
Coverage	Full limbal coverage in all directions of gaze	Often good	Poor
Edge	Good	May cause conjunctival indentation/blanching	Edge stand-off/fluting
Movement with blink	Good	Inadequate- None	Excessive
Push up test	Easily moved/recentres	Difficult to displace/slow recenteration	Easily moved/poor recenteration
Pupil Diameter	The tinted area should cover all of the pupil. If any of the pupil can be seen outside of the tinted area then a larger pupil diameter should be ordered.		

Vision

- Carry out an over-refraction.
- Assess either reading or colour vision with lens(es) in situ.
- A final or exchange lens can now be ordered from Cantor + Nissel.

Lens Modality

These lenses are lathe-cut and are designed to last for up to 12 months. The lenses may need to be replaced more frequently due to the patient's wear and care, this is at the discretion of the practitioner.

Care Guidelines

The recommended care system is Abatron Quattro or Oté Twins Active both of which are multipurpose solutions. Hydrogen Peroxide systems may be used. Other multipurpose systems may cause the colour to fade.



Good Fit – Primary position



Good Fit – Nasal position



Steep Fit – Primary position



Steep Fit – Nasal position



Flat Fit – Primary position



Flat Fit – Nasal position

NB: Images represent clear, untinted lenses.