

Easing Light Induced Discomfort

For patients afflicted by **light induced migraine** or **blepharospasm** wearing FL-41 tinted lenses may offer relief from uncomfortable symptoms.

Research also suggests that specially tinted lenses may help patients with **photophobia**.

How does FL-41 lens tint work?

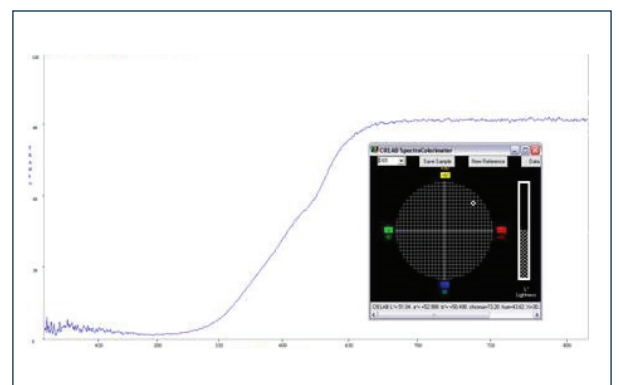
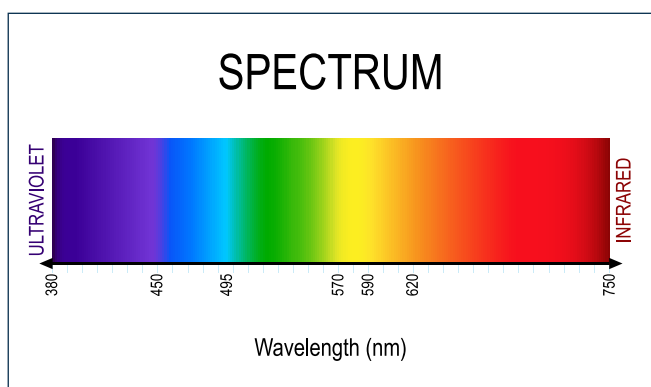
The FL-41 tint offers eye protection through beneficial blue light absorbing properties. Blue light has a wavelength of about 475nm and green light has a wavelength of about 510nm as demonstrated in the spectrum image below.

FL-41 tints **strongly absorb** in the blue green area of the spectrum by blocking most – but not all – blue light.

FL-41 tint works by absorbing green and blue light. Red and yellow light is reflected which is what we see when we look at a FL-41 tint.

The blend of these two colours results in an Amber coloured lens.

Below: Spectra of FL-41 Tint



FL-41 Tint Density

Through industry collaboration and experimentation, Rx Safety recommends 57% tint density for indoors and 70% tint density for outdoors.

If an Optometrist makes a clinical determination for a different density, Rx Safety can cater for a variety of densities. Rx Safety has produced lenses as light as 30% tint density in the past.

Lens Material

Typically Rx Safety performs FL-41 tinting on 1.50 (CR39) lenses. Having said that, FL-41 tinting has also been applied to polycarbonate and Trivex lenses. 1.60, 1.67 and 1.74 lens materials can also be used.

Lens Designs

Rx Safety produces FL-41 treatments in the following lens designs:

- Plano (unpowered lenses)
- Single vision
- Bifocal
- Progressive

Manufacturer Claim

FL-41 has been found useful to reduce eyestrain, tension headaches and migraine. It is thought that indoor lighting contains flickering blue light. The FL-41 tint blocks about 80% of that blue light component.

What We Do

Specialty optics

Prescription safety eyewear

Prescription dive masks & goggles

Leaded X-ray protection glasses

Prescription glass

Specialty tinting

Contact Our Team

Australia

Phone: 1800 111 381

Fax: 1800 111 461

International

Phone: +61 8 8186 3698

Fax: +61 8 8326 0985

Email: enquiries@rxsafety.com.au

26 Cooroora Crescent,
Lonsdale South Australia 5160

Further Reading References for FL-41

The publication by Blackburn et al which can be obtained online is an assessment of FL-41 tint and will provide information for Eyecare Professionals to discuss with patients.

The published paper by Blackburn et al is an assessment of FL-41 tint. This has useful information to discuss with patients. The full paper can be found online.

Extract from Neuro-Ophthalmology Article written by Marianne Doran. November/December 2005:

FL-41 Tint Improves Blink Frequency, Light Sensitivity, and Functional Limitations in Patients with Benign Essential Blepharospasm

Marcus K. Blackburn,^{MD,1} Randy D. Lamb,^{MD,1} Kathleen B. Digre,^{MD,1,2A} Gordon Smith,^{MD,2} Judith E.A. Warner,^{MD,1,2} Robert W McClane,^{MS,3} Sanjeev D. Nandedkar,^{PhD,4} Wendy J. Langeberg,^{MPH,5} Richard Holubkov,^{PhD,6} and Bradley J. Katz,^{MD, PhD,1,2}

Rose-colored sunglasses. Preliminary research at the University of Utah suggests that specially tinted lens may help some people with photophobia. Anecdotally, many photophobic patients prefer an FL-41 tint on their sunglasses instead of green or yellow. The FL-41 tint, which has a pinkish look to it, is a mixture of colors that blocks the blue-green wavelengths. "We randomized patients with blepharospasm to wearing FL-41 sunglasses for two weeks and then to wearing plain sunglasses for two weeks," said Dr. Katz. "The patients filled out questionnaires at the end of each period. We found that patients with blepharospasm definitely preferred wearing lenses with the FL-41 tint to wearing conventional sunglasses. So there does seem to be some therapeutic benefit." In a new study, the researchers have used electromyography to measure blink frequency, duration and amplitude in blepharospasm patients while they read for five minutes at a time with regular eyeglasses, glasses with a light gray tint or glasses with an FL-41 tint. The results are still being analyzed, but Dr. Katz said they appear to provide more objective evidence that FL-41 does reduce blepharospasm. "FL-41 lenses are non-invasive, they have no side effects and they're not expensive," Dr. Katz added. "So it's a cheap, easy way to improve the lives of these patients, who in some cases are very disabled by their disease." Be sure glasses block blue-green. FL-41 lenses are available in optical shops, but Dr. Digre cautioned that some so-called FL-41 lenses are not the real thing. "You really have to know whether the lenses are real or not," she said. "Some lenses can look like FL-41, but they don't act like it. We have done spectral analysis of our lenses to make sure they are blocking the right light".

Other references can be found in the literature. Eyecare professionals and patients are encouraged to read further on this subject.

How to order

It's easy to do business with us even if you don't have an account.

1. Fill out your lens order using your own script pad or use ours at: <https://rxsafety.com.au/order-forms/>
2. Email or fax your order to our team
Email: ebolto@rxsafety.com.au
Fax: 1800 111 461

We accept credit card payment (VISA or MasterCard) or payment via EFT.

Find out more

For the full product range, catalogue and further information please visit rxsafety.com.au or contact Rx Safety's friendly team who are always happy to help.