The ART & SCIENCE of

Transitions®
DriveWear®
Of all the senses that man has, sight is perhaps the most precious of all. In our modern world, it is easy to take vision correction for granted, but eyewear is a relatively new invention.

Nearly everyone will agree that clear prescription eyewear was one of the most important inventions in human history. Prescription eyewear allowed people to free themselves from the constraints of poor vision. This opened up a whole new world for many people to lead a more productive life, resulting in an enormous productivity gain for the human race.

Technology has had a strong influence in the development of clear eyewear. These technologies make our clear eyewear last longer and look better. Transitions® lenses are perhaps the ultimate in everyday eyewear since they adapt from light to dark in varying light conditions and provide the wearer with a more comfortable, convenient sight solution.
While everyday eyewear and sunwear are vital tools in our quest towards optimum vision, today’s modern world demands more. In the past, clear eyewear was considered adequate. In bright light conditions, polarized sunwear was the best thing available. This is no longer true. Today, our lives are strongly influenced by the automobile, which has transformed the way we experience the world when we are outdoors.

Sunwear predates clear eyewear, historically. Early man, especially those found in areas of intense snow glare, formed early sunglasses by cutting narrow slits into thin-carved tusks to protect their eyes from blinding glare.

Much later, the first prescription sunglasses were made from colored glass, then progressed to tinted plastic lenses. Different colors were chosen for different activities, in an effort to maximize outdoor vision for a specific task. The limitation was that the lenses could only be one color, and the wearer could only have optimal vision in a narrow range of light conditions. Traditional sun lenses had to be very dark, and while they may have provided some comfort in bright light, they did not protect from blinding or reflected glare.

Polarized lenses were a great step forward in the evolution of sunwear. Not only do these lenses block out bright light, they also block out intense, blinding and reflective glare. These lenses have become increasingly popular with the introduction of high quality prescription polarized lenses such as NuPolar® lenses.

Traditional eyewear and sunwear serve the driving lifestyle with some shortcomings. Advanced photochromic eyewear, such as Transitions Signature™ and Transitions Vantage™ lenses, do not get dark in the car because the windshield blocks the UV light needed to activate their photochromic response. Transitions XTRActive® lenses have some moderate activation behind the windshield, but since they are not polarized, they do not block blinding glare. Traditional polarized lenses block dangerous glare, but do not adapt to varying light conditions. A third category of lenses is needed in our modern, automobile-centered world. Transitions Drivewear.

Transitions Drivewear sun lenses are capable of sensing and reacting to varying light conditions, both outside and behind the windshield of the car. From overcast conditions, to bright sunlight accompanied by blinding glare, Transitions Drivewear lenses provide the wearer with the ideal solution.

Transitions Drivewear sun lenses darken and change color through photochromics which are stimulated by both visible and UV light, and provide glare protection through polarization. By combining the strengths of polarization with Transitions® Photochromic Technology, Younger Optics and Transitions Optical, Inc. have developed the lens of tomorrow, Transitions Drivewear.
The photochromic properties of Transitions Drivewear sun lenses represent a breakthrough. In the past, photochromics responded only to UV light intensity. Upon exposure to UV light, the molecular structure of typical photochromics, such as the naphthopyrans, will change orientation and absorb light. Windshields of cars block UV light; therefore, conventional photochromics won’t work inside the car.

Younger Optics, the maker of the lens, teamed up with Transitions Optical, Inc., one of the foremost innovators of photochromic technologies, for the latest developments in visible- and UV-activated dyes, to actualize the Transitions Drivewear sun lens.
Transitions Drivewear lenses use advances in Transitions® Photochromic Technology and breakthroughs in Younger Optics’ NuPolar® polarizing technology to create a unique new product.

Other attempts have been made to combine polarization and photochromics. These attempts did not work because the properties of the lens were not designed specifically to make the two technologies work together in a complimentary and synergistic way. The resulting products did not utilize either technology to its fullest potential or achieve the desired visual improvements.

Transitions Drivewear sun lenses go beyond these initial attempts by using each of these specific technologies in ways that enhances each one’s capabilities.

Transitions Drivewear’s combination of technologies is so advanced and novel that patents have been granted on this invention in many countries.

The polarization technology of Transitions Drivewear also represents a significant breakthrough in the use of polarization. Typically, efficient polarization by absorption only occurs when there are a large quantities of absorbers present; that is, when the lenses are dark. While this is desirable for the times when there is bright sunlight, it does not address lower light conditions, particularly during overcast weather. Transitions Drivewear sun lenses feature a high efficiency polarizer that provides excellent polarizing properties never found before in such a contrast-enhancing, light color. This was only achieved by pushing polarized manufacturing technologies to new levels of exceptional performance and light transmittance.
The human eye is a wonderfully designed instrument to collect visual information. Transitions Drivewear’s three different activation states have all been designed to maximize the eye’s natural abilities in each of the different light conditions encountered both outside in direct light and behind the windshield of a car.

**OVERCAST / LOW LIGHT CONDITIONS**
At low lighting conditions, Transitions Drivewear sun lenses provide high transmission of light to maximize the total information to all the eye’s visual receptors. This results in maximum visual acuity at this low lighting level. The high contrast polarizer removes glare that would otherwise destroy vision in low light conditions. In this stage, Transitions Drivewear sun lenses are a high contrast olive green color. As patient testimonials verify, there are no better lenses for driving under low light, overcast conditions.

**BRIGHT LIGHT BEHIND THE WINDSHIELD OF A CAR**
During bright light conditions, behind the windshield of a car, Transitions Drivewear sun lenses darken to copper to control light intensity for optimum visual acuity. Many feel copper is the optimum color for a driving lens because it promotes preferential activation of the eye’s red cones (and to a lesser extent, green cones), resulting in comfortable, crisp vision at these higher light levels. Transitions Drivewear’s high-efficiency polarizer is absolutely essential when driving, because it blocks out blinding glare, one of the most dangerous of all driving hazards. This behind-the-windshield response against bright light and glare is unique among Transitions lenses.

**BRIGHT LIGHT OUTDOORS**
In outside bright light conditions, the eyes’ visual receptors, the rods and cones, can easily get “oversaturated” with light. In bright direct sunlight, the Transitions Drivewear sun lens achieves its maximum dark brown color, which is designed for maximum filtration of this excess light. This means Transitions Drivewear is a great sunwear lens for more than just driving. Younger Optics has received many patient testimonials confirming that these unique polarized, photochromic sun lenses can make any outdoor activity more enjoyable.
POLARIZED to remove glare for safe driving vision

DESIGNED TO

COLOR

designed to remove excess light and provide good traffic signal recognition; highlighting the reds and greens

POLARIZED

to remove glare for safe driving vision

DAYLIGHT

DRIVING CONDITIONS

COPPER COLOR

BRIGHT LIGHT

OUTSIDE CONDITIONS

BROWN COLOR

COLOR

designed for maximum filtration of excess light so that the eye does not get saturated

POLARIZED

to provide maximum comfort in high light conditions

LIGHT TRANSMISSION IN THE CAR

LIGHT TRANSMISSION IN BRIGHT LIGHT CONDITIONS
Worldwide, there are nearly 1 billion drivers and the number is growing every year. Anyone of driving age that walks into the optical shop is a great candidate for Transitions Drivewear sun lenses. Though anyone can benefit from the improved vision delivered by Transitions Drivewear lenses, these are the target patients who should always have the benefits of Transitions Drivewear sun lenses explained to them:

**COMMUTERS**

Patients who have a significant commute to and from work each day. If their commute times are in the early morning and late afternoons when the sun is low on the horizon, the need for Transitions Drivewear is even greater.

**PROFESSIONAL DRIVERS**

Patients who make their living driving a motor vehicle, such as truck drivers, taxi drivers, travelling salespeople, bus drivers, ambulance drivers and law enforcement officers, simply should not be without the benefits of Transitions Drivewear lenses.
EVERY DRIVER NEEDS TRANSITIONS DRIVEWEAR!

MOMS & DADS
The driving task becomes even more challenging with children in the car. Additionally, the consequences of an accident become even greater. Whether driving to the store, soccer practice, or school... these parents need the driving edge brought by Transitions Drivewear sun lenses.

ELDERLY
Elderly drivers may experience driving challenges such as slower reaction times and may be unable to turn their heads as quickly as younger drivers. Transitions Drivewear sun lenses offer advantages that can help. Elderly drivers love the visual comfort, glare blocking, and pleasing contrast brought by Transitions Drivewear sun lenses.

EVERY DRIVER NEEDS
Transitions Drivewear sun lenses have the potential to greatly improve the optical industry and your business. With clearly definable features and benefits, Transitions Drivewear sun lenses are designed for the target market that includes nearly everyone: automobile drivers.
I’ve enjoyed my Transitions Drivewear prescription lenses for about 5 months so far. Yesterday was the test. We launched the boat in foggy conditions at daylight. Kept my glasses on the whole time with NO vision problems navigating the river. When the fog lifted, we found these fish!! Thanks for an awesome product.

Mark Uyehara
Crestview, FL

I have not been able to drive for several years because of the bright light. But after purchasing my Transitions Drivewear, I can drive to church again. I also decided to purchase a new outfit to match my new sunglasses! Not bad for a young lady who is 77!

Billie Jean Ransom
Birmingham, AL

I like them very much. I noticed they really highlighted orange road construction signs so I had a set of Transitions Drivewear sun lenses made for my Randolph Ranger shooting glasses for clay target shooting. The clays are usually high visibility orange and they are much easier to see with these lenses.

Edmund Casto
Somers Point, NJ

These are great for driving in all conditions, even when the bright sun reflects off the snow we get here in Michigan. I spend a lot of time outdoors and wear them all the time. They reduce glare and make it easier to see wildlife and the contours of the land when covered with snow.

Gary McMillan
Battle Creek, MI

About a year ago I asked if the Transitions Drivewear sun lens would be sufficient for a planned trip to Antarctica. I was assured they would handle the bright sun and reflections off the snow and ice. In January 2011 I finally got to Antarctica and I couldn’t have been happier with my Transitions Drivewear sunglasses. They were comfortable on sunny days, snowy days, rainy days, and overcast days. Thanks for making such a marvelous product.

Daniel Hope
Athens, GA
In the past I had to keep changing glasses from my “blended prescription tri-focal” to non-prescription sunglasses. Now I can wear the same glasses in all conditions and actually see. Now my headaches are gone. I wear my Transitions Drivewear sun lenses all of the time, whether hiking, working under my hydroponic grow lights, hiking in the mountains, or just scoping out the beach.

David Ostler
Honolulu, HI

I have three pairs of Transitions Drivewear sun lenses. The one in the photo I wear exclusively to play baseball. I had Lasik surgery eight years ago and I was looking for a very good sun lens. This is the perfect commodity and offers excellent protection for eyes. I’ve had them for two years and it has been the best investment in sunwear I’ve made in my life.

Wilmar Ortiz
San Juan, PR

I love my Transitions Drivewear sunglasses; I wear them all of the time. Once, driving in a rainstorm, I thought to myself, it’s crazy to be wearing sunglasses while there is very little sun out. But when I took off my Transitions Drivewear I couldn’t see anything at all. So I put them back on and the road was much clearer. I have been an optician for 14 years, and I always recommended them.

Stacey Scott
Dodge City, KS

I work on a Snorkel Cruise boat for Pacific Whale Foundation on Maui, Hawaii. The Transitions Drivewear sun lenses work great on the boat in the bright sun on the ocean. I’m delighted with them.

George Morris
Battle Creek, MI

Being a truck driver, I felt it was an excellent investment to get glasses that block the glare of the sun in your vehicle when driving. I no longer have to use my sun visor to block the sun when driving. My new sun lenses were perfect when my wife and I went to Hawaii for our 25th anniversary.

Melvin L. Duncan
Blue Springs, MO

I have never had sunglass lenses better than these. This year I got my first Transitions Drivewear Image® progressive lenses and I swear that Transitions Drivewear has me hooked and I will never use anything else. I am recommending them to the 26,000 members of the Ulysses Motorcycle Club here in Australia as must-have eyewear for riding. The difference between Transitions Drivewear and normal sunglass lens technology is amazing. Congratulations and thanks for bringing such a superior product to the market.

Neil McKenzie
Adelaide, Australia
FOR MORE INFORMATION AND TECHNICAL DETAILS, VISIT
WWW.DRIVEWEARLENS.COM

TRANSITIONS’ DRIVEWEAR’ SUN LENS AVAILABILITY

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CAUTION:
Transitions Drivewear sun lenses should not be used for night driving.

CAUTION:
As with all photochromic lenses, Transitions Drivewear will become much darker in cold, sunny environments, and may limit visibility in extremely cold weather. Use special caution when operating open air vehicles such as convertibles, motorcycles, snowmobiles, or all terrain vehicles, or engaging in activities such as skiing.

TRANSITIONS DRIVWEAR SUN LENSES BLOCK 100% OF UVA/UVB RAYS

UNITED STATES
2925 California Street
Torrance, CA 90503-3914 USA
Phone: (310) 381-1362 or (800) 366-5367
Fax: (800) 828-8771
Orders: CustomerService@YoungerOptics.com

EUROPE
Komerční Zona Pruhonice
Obchodní 110, Čestlice 25170, Czech Republic
Phone: +420-234-097-222
Fax: +420-234-097-200
Orders: CustomerService@YoungerOptics.com

BRAZIL
Rua Alfredo Achcar, 970D - Prédio 10
Bairro Nova Vinhedo - Vinhedo - SP
CEP 13280-000
Phone/Fax: +55 19 3517-5700
Orders: Pedidos@YoungerOptics.com.br

AUSTRALIA
Unit 6, 9-13 Ridley Street
Hindmarsh, South Australia 5007
Phone: +61 88241-9800
Fax: +61 88241-7108
Orders: Orders: Admin@YoungerOptics.com.au

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