The Village optician Ltd
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TINTS AND COATINGS FOR YOUR SPECTACLE LENSES

Your optometrist has carefully determined the correct prescription for your eyes. To get the best possible result with this prescription your optician will help you choose the best lens design, material, tints and coatings for your new spectacles.

Q What are tints?

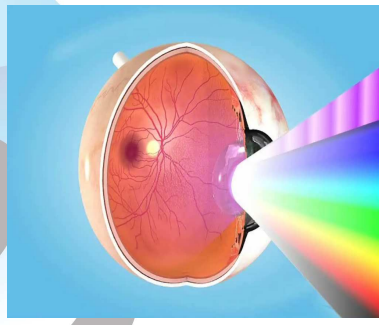
A Lenses are tinted by either dyeing the lens of applying a thin coating to the lens. A huge variety of colours and shades are available depending on your requirements and personal preferences.

Tints serve a number of functions:

- Tints reduce the amount of light entering your eyes which can improve your vision and reduce glare under bright / sunny conditions.
- Tints are usually designed to filter out ultra-violet light which has been linked to the development of cataracts and changes at the back of the eye.
- Tints can enhance certain colours resulting in grass looking greener for example. Some people find certain tints very relaxing.
- Tints can look aesthetically pleasing.

Q What is the advantage of tints which block Ultraviolet (UV)?

A Ultraviolet refers to short wavelength light just beyond the blue part of the spectrum. There is now good evidence that prolonged exposure to UV light can increase the risk of developing cataracts and damage to the back of the eye (macula degeneration).



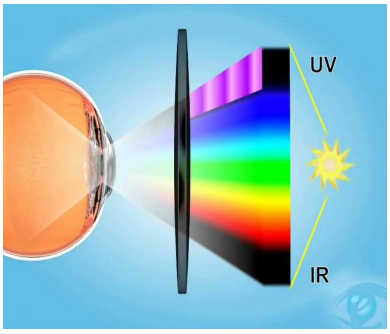
If you spend a considerable amount of time outside, particularly by water or at altitude, most experts agree that it is advisable to wear spectacles or sunglasses which filter out the UV light.

When buying sunglasses, make sure that they comply with the relevant standards and are marked clearly to state that they offer UV protection. Normal spectacle lenses provide some protection against UV but this can be enhanced by adding a UV blocking tint.

Q What are Photochromic lenses?

A Normal tinted lenses are great for when you are out in the sun but are generally too dark for wearing under cloudy conditions or indoors. This means that you have to take your tinted lenses off and maybe put on a pair of clear glasses.

Photochromic lenses solve this problem by automatically adjusting the tint according to the amount of light – going dark in the sun and almost clear indoors. Modern photochromic lenses darken and lighten within a minute or so and are available in glass or plastic. It is important to note that there is usually a very slight residual tint even when indoors. This will not affect your vision but may be



visible when you look closely. It is also important to note that photochromic lenses may not darken completely when driving because some of the light which activates the lens is cut out by the windscreen.

Q **What are Polarised lenses?**

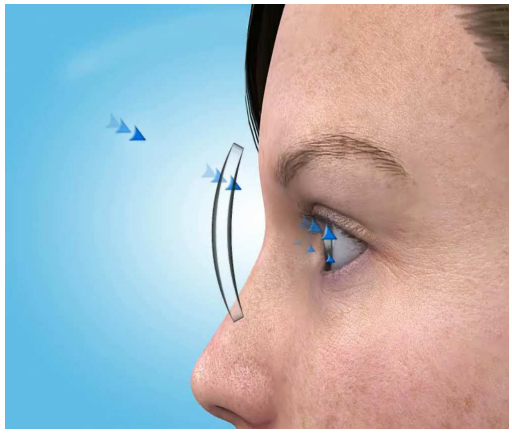
A Light reflected from shiny surfaces such as water, a wet road, metal etc. is polarised. This means that the light waves are all “vibrating” in the same direction. By putting a polarised lens in the opposite direction in front of the eye, the bright reflections from the shiny surfaces can be selectively cut out thereby reducing glare.

Polarised lenses can greatly reduce the glare when driving (especially in bright, wet conditions) and are particularly effective for those who enjoy fishing or water sports.

The only disadvantage of polarised lenses is that the lamination pattern on windscreens may be visible when wearing these lenses and some people find this distracting when driving.

Q **What is an Anti-reflection coating?**

A An anti-reflection coating is a very thin layer which is applied to the front and back surface of the lenses. The coating reduces the brightness of the reflections from the lens which makes them clearer to look through and less conspicuous to look at. A coating greatly improves the appearance of higher prescription lenses and



is particularly important if you have high index lenses. The coating also tends to provide some resistance to scratching.

Q **How does a Scratch-resistant coating work?**

A Traditionally, spectacle lenses were made of glass. While glass provides excellent optical quality and is very difficult to scratch, it is heavy and can shatter. Nowadays, most spectacle lenses are made from a form of plastic which is lighter and does not shatter. However, plastic is a softer material and therefore tends to scratch more easily.

To avoid this, a thin coating of a harder material can be applied to the surface of the lens. This invisible layer reduces the likelihood of scratching and thereby increases the life of the lenses.