



Vision in sport has been discussed at length in the pages of *Optician* both for the purposes of performance and safety. This year's Tour de France provided a chilling reminder of the dangers many sports people, elite and recreational, face and highlights the need for good vision and eye protection.

Multiple crashes forced nearly 20 riders from this year's tour race in the first week alone. While bad luck and bad driving can be blamed for some, it shows the importance of all round vision when 200 cyclists are forced together travelling elbow-to-elbow at 60km per hour.

In recent years, eyewear has become an established part of the team kit in many sports and developed as a sports fashion item. Styles, base curves and eye shapes have become more pronounced but all too often these are achieved at the expense of less than perfect optics, says Oakley Ireland Optical's managing director, John Russell.

Enhanced optics

This spring Oakley introduced its True Digital surfacing which it believes offers enhanced optics across the whole surface of a wrapped eyewear lens. Russell says Oakley True Digital (OTD) optimises the vision through curved performance lenses widening peripheral vision and reducing distortions. It claims that by reducing peripheral blur and providing sharp vision across the lens, wearers benefit from improved motion detection and can recognise objects more easily. It does this through its proprietary Dual Peripheral Technology (DPT), which enables the digital surfacing technology to customise the lens to the patient by taking the frame details and patient's prescription into consideration.

In the mid-periphery Oakley says DPT balances the vision between both eyes to improve recognition of larger objects, in the far periphery blurring and distortion are reduced which aids motion detection.

This is achieved through the lens design and recalculation of the prescription based on the eye shape and wrap of the frame. Russell says Oakley Ireland Optical is now using the most up-to-date digital surfacing and glazing equipment coupled with Oakley propriety design software to achieve this. He remains guarded about precise details of the equipment

Teeming with technology

Oakley says it has created a new benchmark in sports vision with the launch of its True Digital lenses, **Chris Bennett** asks why



saying only: 'The firm has invested significantly and plans to increase this investment with new technologies in the coming years. We also have invested in, and obtained ISO 9001 and ISO 13485 medical standard, which gives us the correct procedures and processes to supply a quality product.'

Stressing how different OTD is to current solutions, Russell says traditional lenses simply cannot deliver good optics at the periphery when surfaced and glazed into wrapped frames. While decentration improves performance it does not solve all of the issues with distortion at the lens edge. 'A big issue with wrap Rx in the past has been unwanted prism due to the curvature of the frame. This resulted in a lot of non-adapts and uncomfortable vision particularly with high prescriptions. This issue has been virtually removed due to OTD and our DPT, giving excellent vision across the entire lens from the centre to mid and far periphery.'

Oakley is famous for its extreme styling which often incorporates design touches that affect the lens. Attempts to prescription glaze these are not always faithful to the original design. 'In terms of glazing we offer step bevel technology, Jawbone vented and, coming soon, Fast Jacket Switch Lock technology. We are a speciality lab

because we design and manufacture the frames so we know the exact parameters, whereas other labs would not have this information, so could not customise the Rx to suit correctly.'

Despite the futuristic look of some of Oakley's products Russell is keen to point out that the new lens technology is available to UK practices now and suitable for a wide range of customers. 'We have concentrated on the sports optics as we see this as our expertise and we apply this for sports applications by using our OTD and DPT, giving the patient better optics and comfort.' He says this allows practices to offer frames like Flak Jacket and Jawbone with OTD progressive and the lab is able to reduce minimum PDs for a lot of large eye sizes.'

Exclusive boost for practices

Oakley is also hoping to help its optical customers improve their business through OTD. As the service is only available to its optical clients, Russell says it provides those practices with a real differentiator. This offers them an exclusive, high-value product that is less likely to result in non-tols and is part of the Oakley product range which has a high profile and broad choice. He also believes customers who want Oakley quality want to make sure the lens tints and coatings are matched to the frame, something he says only Oakley can achieve as they are Oakley property. From a practical point of view, allowing a third party lab to glaze an Oakley frame voids the warranty. More importantly he says: 'We have all the data of the frames to fully optimise the optics of the lens and also in terms of glazing no one knows our frames better than we do. It's the complete package: OTD optics, aesthetics, coatings, warranties and service. It's a case of the whole is more than the sum of the parts.'

Since the spring launch, over 200 patient trials have been carried out and Russell says the feedback has been 'immense'. Professional cyclist Frank Schleck was also showcasing the product in the Tour de France. Luckily, he was one of the riders who managed to stay on his bike. ●

Tour de France cyclist Frank Schleck puts his Oakleys to the test