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TRANSFORMING LENSES WITH COMPOSITE OPTICS

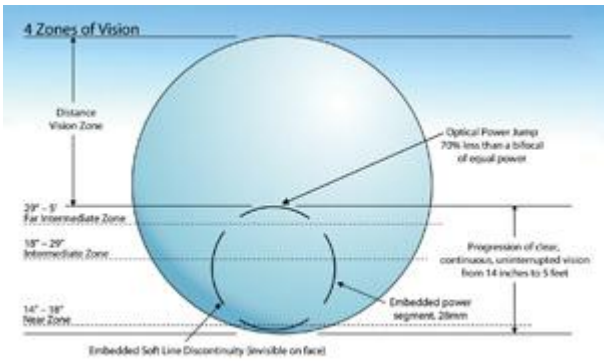
While past attempts to combine different lens materials have failed, PixelOptics, Inc.'s new composite plastic lens has the potential to revolutionize the lens industry.

COMPOSITE OPTICS can best be described as combining two dissimilar materials to create a lens. When properly designed and constructed, a composite lens can provide features that surpass what either material can provide independently.

There are two elements in the creation of a composite lens, the materials that are used and the way in which they are combined. The final quality, integrity, and performance of the resulting composite lens are determined by both the quality of the materials used and the way in which they are combined.

WHAT IS COMPOSITE 67?

PixelOptics, Inc. has created a composite material known as Composite 67. This new lens material bonds Trivex® and MR-10™ at the molecular level—what the company calls "intra-molecular bonding." Unlike laminated lenses, which can partially or completely separate, intra-molecular bonding renders the materials virtually impossible to separate. This bonding is similar to interlocking the fingers of both your hands.



The new composite lens features four viewing zones—distance, far intermediate, intermediate, and near, of which the last three are continuous.

Both Trivex and MR-10 (known by most optical professionals as 1.67 index lens material) contribute a unique set of features and benefits. Trivex is remarkably impact resistant, lightweight, chemically resistant, and optically clear. MR-10 is lightweight and thin. Both drill well, and the resulting composite can be surfaced thinner than either lens material could be on its own. The potential for joining other materials is clearly on the horizon, each with its own unique set of features and benefits.

THE FIRST COMPOSITE LENS

Named *atLast!*, the first new composite lens introduced by the company is not a bifocal, a blended multifocal, nor a progressive addition lens. It uses a front power gradient component and an embedded segment back, resulting in four zones—a distance zone, and then after a soft image jump, a far intermediate, intermediate, and near that are all continuous.

PixelOptics expects the introduction of *atLast!* to change how bifocals are perceived by optical labs, turning the commodity bifocal category into a premium, value-added market segment. According to the company, 17 million pairs of bifocals continue to be dispensed in the U.S. each year with over 50 million pairs dispensed worldwide. These wearers are completely missing the intermediate range of vision, which is where so much everyday activities happen. atLast! is aimed at satisfying the needs of the 35 million current flat top wearers in the U.S.

PixelOptics was founded by Ronald Blum, OD, an eyecare professional with 30 years of optical industry experience and former general manager of Advanced Technology for the Johnson &

Johnson Spectacle Lens Group that led the team that invented Johnson & Johnson's DEFINITY® progressive lens. The company has amassed a total of over 300 patents and patent applications in the U.S. and around the world.

Composite optics provides a new platform that opens the door to a seemingly unlimited variety of new and highly innovative lens products. Stay tuned for news on PixelOptics' electroactive lenses, also made with composite construction (see page 20).

William D. Spies is Chief Operating Officer of PixelOptics, Inc. in Roanoke, VA, past vice president of Essilor, past president of Hoya Lens of America, former executive vice president and general manager of Seiko Optical Products for North and South America, and former manager of Corning Optical's export business.