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SPECTACLE LENSES

Alternative Lens Material

New materials are bringing better optics without losing their shatter resistance. This opens up a whole new world for your customers

By Joseph L. Bruneni

PPG (Trivex material)

This is the company that developed CR 39. During the last 10 years, however, CR 39 has lost a significant portion of the American lens market to poly and high index. Four years after CR 39's 50th anniversary, PPG announced Trivex, a totally new material originally developed for the military as a special category called "transparent armor." To qualify for that classification, a material must be lightweight, impact resistant, solvent resistant, and provide good optics. Obviously, these are also ideal properties for an ophthalmic lens.

Converting a military transparent armor plastic to ophthalmic use was a major undertaking requiring the combined efforts of three companies. PPG was aided by two major lens producers: Hoya and Younger Optics.

The new material enjoys three distinctions: Impact resistance comparable to poly; a high Abbe value of 43 to 45 (poly is 31); and a low specific gravity of 1.11, the lightest of all lens materials.

PPG's Vice President for Optical Products Rick Elias explains, "Our research told us that consumers look for three things in lenses: optical performance, thin and light features, and impact resistance. No lens material delivered all three consumer advantages. Trivex represents breakthrough technology because of its tri-performance. These patient benefits also define the name we chose Trivex."