

## Zero Technology

Most manufacturers would agree that high quality products start with high quality raw materials. To the IOL manufacturer, this means the highest quality polymer blanks. For Benz Research & Development, this means starting with the very highest quality monomer raw material possible period and controlling that quality.

At Benz Research & Development, we have a vast amount of expertise in the manufacture of high purity 2-Hydroxyethylmethacrylate (2-HEMA), the primary monomer component used in hydrophilic acrylic IOL material. We have developed an advanced 2-HEMA manufacturing process that produces raw material monomer with a purity that is consistent with the requirements of the IOL industry rather than the soft lens industry. We call this process Zero Technology. Zero Technology delivers an ultra pure material with 99.9% purity, the quality expected for a polymer implant that may be in the eye for more than 40 years. We are the only IOL material supplier that is basic in its 2-HEMA monomer raw material.

Zero Technology produces a raw material that is so pure that the methacrylic acid content is too difficult to measure. The resulting hydrophilic acrylic IOL polymer has 10 to 20 times less acid than even the “highest purity” commercial monomer, plus a much higher total purity, this results in a zero ionicity polymer. Zero ionicity IOL material provides a further degree of quality assurance by eliminating the possibility of calcium phosphate particles appearing over time in the polymer matrix, which can lead to opacification.

