

COMPANY OVERVIEW

Overview

- SIO2 is a material science company, established in 2010, that has invented and developed an innovative, new material for use as a primary container in the medical field.
- More than 10 years and \$500 million has been invested in Research & Development. The company has filed and been awarded, on a worldwide basis, hundreds of patents covering this invention with over 8,000 claims.
- The material has an extremely thin coating (on average 30 nanometers of pure SiO₂) that can adhere to any plastic substrate covalently. This covalent coating gives many beneficial properties to the material and the contact surface can be engineered to match the use, including changing it to be hydrophilic or hydrophobic.

Material and Business Benefits

- Our goal is to provide the safest and the most usable package for all the new categories of biological delivery systems at an affordable price.
- The products developed with this material completely reduce all the known risks in both the current glass or plastic products.
- The material provides for the safest drug contact surface, greatly reducing immunogenicity negative effects, has 100% inspection for all critical defects, and is guaranteed greater than six-sigma quality level.
- The coating gives the combined benefits of plastic and glass, without the drawbacks. Plastic and glass have certain innate issues which this innovative material does not exhibit, including:
 - 1) The material is robust and withstands all types of stresses including: Thermal, Chemical and Mechanical. It maintains stability and integrity to -196c, 3-14pH, and 680 Kg / 1500 lb of direct force.
 - a) There are no leachables or extractables
 - b) There are no metal ions
 - c) There is no delamination
 - 2) The coating makes the plastic impervious to all gases, liquids, and moisture. (Gases include but are not limited to O₂.)
 - 3) No silicon oil is required in syringes or other devices.
 - 4) Containers made from the material have zero particles down to 2 microns. (no particles to 300 nanometers available from Jan 2021)
 - 5) The material can be molded into any shape with far greater precision than glass, retains all the above qualities and is as clear as glass.
 - 6) There is an FDA aligned pathway based on like for like equivalency to glass for regulatory purposes.
- The material is cost competitive, and every process and product can be made to a six-sigma plus level. It lends itself to high degrees of automation and therefore it can reduce overall processing costs and be more competitive than traditional materials.
- This material solves every known problem that the medical industry has had with glass and plastic containers. This innovative material does not mitigate the issues, it eliminates them.

Commercial Products

- The company has commercialized:
 - Syringes, Vials, Cartridges for biological products and vaccines
 - Blood Collection Tubes for genomic testing
 - Micro Titer plates and various labware for diagnostic testing. All of these products follow ISO standards and include all of the above mentioned materials benefits.
- The company works with customers on many custom applications to help them bring their innovation to life.

Our Talent

- The company employs more than 200 people. 80% of which are highly skilled engineers and scientists.
- Our corporate offices and production facilities are located in Auburn, Alabama.
- Our world class scientific board actively participates in our product development and in supporting the development of our young engineers and scientists.

Service Model

- Due to a lack of innovation, our competitors' products have become very commoditized and as a result, they have been operating with a lack of service with a very low touch sales and service model. Our approach to the customer is high touch, with white gloves. We believe our mindset of "customer delight" with what you need and what you want is what we provide and will serve as a strong and sustainable competitive advantage for our high service model.