

SiO2 Materials Science launches new vials as the ideal alternative to glass

Auburn, Alabama, April 2020 – SiO2 Materials Science today announced the launch of a line of glass-alternative vials for use in vaccines, biological drugs, and cell & gene therapy primary packaging.

Unprecedented times call for extraordinary measures. To address the challenges of today and advance future interventions, SiO2 Materials Sciences launches a line of specialty vials for biologic drugs and vaccines. Vaccine and biologic development have been hindered by gaps in using glass or plastic to develop and deploy innovative therapies.

The SiO2 vials solve significant challenges in the commercialization of vaccines and biological drugs which presently cannot be solved by glass or plastic. This is especially critical for many of the vaccines currently in development for COVID-19. **Thermal Stability & Integrity:** with a thermal stability range of -196°C to 121°C and with a seal integrity down to -80°C, the SiO2 vials provide the ideal primary container for therapies which require cold storage

Chemical Stability: safe and suitable for a wide range of drug characterizations including pH ranges from 3-12; there is no risk of delamination as observed with glass vials

Gas barrier: SiO2 vials have gas permeation properties like glass and therefore provide the required shelf life and stability required by many therapies

Mechanical durability: SiO2 vials can withstand 1,500 pounds of direct force saving millions from breaking on filling lines and minimizing loss in the supply chain

No Breakage: the vials are shatterproof making them safe for healthcare staff and the patient

As stated by Chris Weikart, Chief Scientist, “Many drug development and drug formulation innovations can be limited due to variables associated with traditional glass vials: lot to lot material variability, leachables, etc.. These variables result in lost time and money due to extensive formulation studies. With the SiO2 Vials, we eliminate these variables and allow our drug development partners to bring their innovations to life.”

“While the vials themselves share many properties of both glass and plastic, we have conducted and passed all the studies required for regulators to approve the SiO2 Vials as a like for like to glass,” stated Pete Sagona, Senior Vice President.

According to Lawrence Ganti, Chief Business Officer, “SiO2 is dramatically ramping up capacity to meet customer demands and to ensure that the surge seen due to the COVID19 vaccine developments can be accommodated. We have very short lead times, so we can meet the increased demand for glass or plastic vials.”