



Glass Packaging Case Study

Rethinking the pharma packaging paradigm:
A case for molded glass

Follow us





| The supply chain challenge

The supply chain challenges for Type I glass packaging materials over the last year are a result of a series of events with a ripple effect across the industry. The Covid-19 pandemic placed an enormous global demand on the supply of Type I glass vials (especially on tubular glass for vaccines), which led to many pharma manufacturers experiencing vial shortages and requiring a secondary solution.

When one of the largest pharmaceutical firms in the Americas faced an urgent need for tubular vials after securing a significant contract, the disruption in their supply chain jeopardized their ability to provide their drug to the market. The firm had a sudden increase in demand for a product from their Human Health plant and their incumbent glass manufacturer could not fulfil the large quantity of 10ml tubular vials within the time frame required.



| A balanced alternative

The drug manufacturer turned to SGD Pharma, already a long-term vial supplier for another of the company's plants, for fast delivery of the tubular vials.

Although importing tubular vials from SGD Pharma's manufacturing plant (in Vemula, India) was an option, the global shortage of tubular cane would cause a longer lead time than the company could withstand. SGD Pharma therefore provided an alternative proposition to the customer – using 10ml molded glass vials (available in both amber and clear glass) to replace the traditional tubular option, as this vial was immediately available in stock.

During production, molded glass vials are formed directly from the glass furnace, rather than converting from tubular cane that originates from a furnace elsewhere.

Therefore, hundreds of thousands of containers can be produced in a single line each day, meaning production can be flexible – particularly important for a situation where supply is urgently required. SGD Pharma rapidly sent sample vials to the customer for validation on its automated filling machine with some minor adjustments, which had previously been used for the tubular vial fill/finish. The SGD Pharma molded glass vials ran without any issues, allowing the drug manufacturer to seamlessly transfer to this alternative packaging solution while maintaining regulatory compliance.

The pharma company's production team noted an additional unforeseen benefit when inputting the molded glass onto the high-speed filling line; the molded glass vials were more mechanically resistant than their tubular counterparts, improving performance and reducing waste thanks to fewer breakages along the line.

■ *The outcome*

The customer contacted SGD Pharma for a solution in April 2020 and following an initial fast-tracked shipment of a production sample in early May, by the end of June 2020 a large commercial quantity of molded vials had been delivered to meet the manufacturing demand. The successful implementation of molded Type I glass vials at the Human Health plant motivated the company's Animal Health plant to also turn to SGD Pharma for an alternative packaging solution for one of its products that experienced a similar surge in demand. After testing SGD Pharma's 100ml molded Type I glass vials, the Animal Health plant made a commercial order for 100ml molded glass vials to use as substitute for its existing smaller size tubular vials. Given the less stringent regulations in the veterinary market compared with human pharma, the company could transition to a larger vial size in a different material quickly, without delays from compliance.

The change from tubular to molded vials could be duplicable for companies looking to mitigate the risks of tubing vials supply shortages. The flexibility of global firms to ensure different options for their pharmaceutical packaging in the future will ensure business continuity throughout uncertain climates. SGD Pharma can support with the process of validating molded glass vials, by providing support and information to help with the scientific justification of material changes.

Although tubular continues to be a viable option, molded vials gave this customer the flexibility to comfortably change its packaging without major disruption and allowed for quick delivery due to increased production capacity. Molded Type I glass vials continue to be a reliable and safe alternative to tubular glass. ■



CONTACT OUR SALES TEAM IN YOUR AREA FOR MORE INFORMATION !