



## VIPA International Case Study

### Providing Thermal Protection for COVID-19 Vaccine Shipments from BioNTech Facilities

#### The Problem

The Pfizer-BioNTech COVID-19 Vaccine (BNT162b2), which is based on BioNTech's proprietary mRNA technology, was developed by both BioNTech and Pfizer. While the short term shelf-life conditions for up to 31 days are easy to handle at fridge temperatures, the frozen vials can be stored and transported at -90 °C to -60 °C for up to six months.

#### The Solution

The custom container from CSafe Global uses a double wall of best-in-class Vacuum Insulated Panel (VIP) technology, a custom payload box with product vial trays with a built-in handle for simplified packing and unpacking. Thermal testing exceeded all expectations and the shipper consistently performed well beyond the 240-hour minimum. The container will maintain the desired temperature indefinitely with the addition of dry ice as needed.

#### The Result

The tailor-made double-wall VIP insulated shipper provides 10+ days of temperature protection for vaccine shipments from BioNTech's facilities in Germany. Additionally, CSafe was able to reduce the amount of dry ice needed by more than 30% from their original projection by making additional tweaks to the design.

The custom thermal shipping container maintains -70°C for a minimum of 240 hours to help ensure the vaccine is being transported while maintaining the cooling chain without any additional equipment

***Case study and images provided by CSafe Global.***



Avenue de Tervueren 188A, Postbox 4,  
1150 Brussels, Belgium,  
Phone: +32 2 761 16 81  
Fax: +32 2 761 16 99

#### About VIPA International:

The Vacuum Insulation Panel Association is a global trade association representing the interests of manufacturers of vacuum insulation panels as well as the supply chain. The mission of the association is to act as the global voice of the vacuum insulation panel industry, promote quality and raise awareness of the potential to save space and energy costs and to reduce carbon dioxide emissions in a wide range of applications and industries. VIPA International is a 501 (c) (6) not-for-profit organisation incorporated under the law of the State of Delaware in the United States of America. The association was created in August 2014 by ten founding members.

For more information, visit [www.vipa-international.org](http://www.vipa-international.org) or contact the global office at [vipa-international@kellencompany.com](mailto:vipa-international@kellencompany.com).