

TRANSPORTING HARVESTED STEM CELLS ACCOMPANIED BY A COURIER FROM BRAZIL TO SOUTH AFRICA DURING THE COVID-19 PANDEMIC



ABOUT ONTIME COURIER

Since 1995, The Ontime Courier GmbH has specialised in the delivery of national and international overnight and express shipments. We have over 20 years experience in development and implementation of individual, high-quality transport solutions. best solutions. This makes us one of the best -known medium-sized international companies and the top of the privately owned express services in Germany

The award-winning Original Golden Hour™ technology was developed to protect troops' lives on the base and the battlefield in the harshest of environments and climates. Today, Peli BioThermal's packaging solutions provide the most reliable, longest temperature control duration on the market — 96 hours of thermal protection. Life-saving materials are housed in smaller, lighter weight, rugged and durable temperature controlled Crēdo™ shipping containers without the need for wet or dry ice or gel packs.

A Peli BioThermal Case Study

Background:

When onboard couriers transport HSC products across the globe it's not only an on-time delivery that matters. "On-temp" delivery is even more crucial. Maintaining the requested temperature range for the life-saving payload is essential. Without temperature control, the potency of the HSC products is diminished or depleted completely. That means patient safety is at stake. Providing the optimum packaging that protects the valuable cargo is a tremendous responsibility.

Since 2012, Ontime Onboard Courier has provided courier accompanied transportation services to the South African Bone Marrow Registry, by carrying life-saving bone marrow and stem cell products to patients in need fighting blood cancer. Following contact in 2011 with Minnesota Thermal Science, Pelican BioThermal's predecessor, Ontime Onboard Courier's search for a reliable transportation box system led them to use the Crēdo ProMed™ Series 4 for refrigerated sample transport.

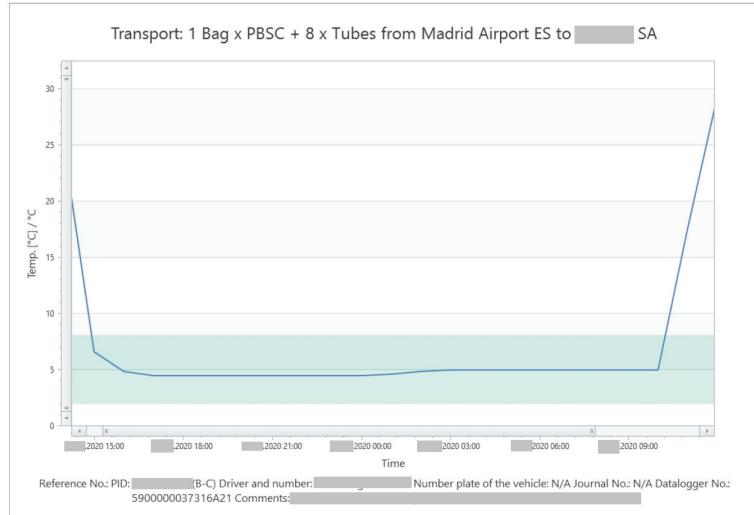
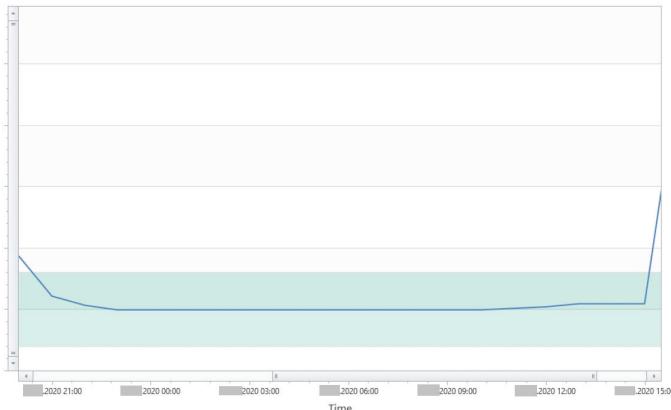
Once the current pandemic crisis struck, South Africa went into lockdown and closed its borders in the middle of 2020, resulting in the fact that courier accompanied transports could not be carried out for several months.

Required:

With the re-opening of South African borders passenger flight services slowly recovered. In October 2020 Ontime Onboard Courier was approached and asked if a life-saving HSC product could be picked up in Brazil and delivered in South Africa, while not only meeting the required transport conditions, cooled at 2-8 °C and within the required time frame, but also considering all new travel requirements issued by the Brazilian and South African Government with regards to the pandemic.



Peli BioThermal's innovative Crēdo ProMed™ is technically advanced, the result of years of testing in our laboratory by on-staff engineers specialising in new product development, design and rigorous quality testing.



SOLUTION

Once available flight connections, potential back up flights and “what if...” scenarios have been checked and reviewed, a decision was made together with the client. Due to the long distance and limited flight availability, it was determined to route via the European continent and to split the complete transport into two parts by providing two couriers carrying two transport boxes to complete the mission: – one courier covers the first segment from Brazil to Europe, the other courier covers the second leg from Europe to South Africa.

The first courier flew to Natal, Brazil with a preconditioned Crēdo ProMed™ transport box (+4 °C) to pick up the HSC product. Even if faced with a rebooking of the first transport flight leg the courier still arrived as scheduled at the airport of Madrid, where the life-saving transplant was handed over to the second courier, including the product transfer into another preconditioned Crēdo ProMed transport box (+4 °C). Six hours after product handover took place the second courier left Madrid aboard a flight to London Heathrow in order to catch the final long-haul flight to South Africa.

40 hours after pick-up in Brazil, the HSC product was safely delivered to the transplant hospital in South Africa. Both temperature graphs provide evidence that the product was kept within the required temperature range of around +4 °C during the whole transportation process. This data came from the temperature logger devices used on transport. A proper preconditioning and the ability of Peli BioThermal's TIC™ coolants to hold the required temperature for the sufficient time frame meant that both couriers did not have to rely on any external refrigerators or freezers whilst in transit.

RESULT:

Crēdo ProMed™ Series 4 8L boxes not only protect the sensitive payload from physical impacts but keep HSC products within the required temperature range at the same time during every transport around the globe. A proven track record of more than 10,000 transports show the reliability and system stability of these boxes.

The transport from Brazil to South Africa resulted in the successful transfusion of an HSC product helping to save the life of a patient in need. This was our fourth transport for the customer from South America to South Africa where the boxes facilitated a successful delivery by meeting all requirements for temperature control and duration of transportation time.