

Sealed Air Opens Singapore Lab to Provide Thermal Package Design and Testing to the Region's Life Sciences

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One-stop solution for temperature assurance packaging requirements, ensuring product safety and reducing product loss throughout the supply chain



Sealed Air Corporation announced the opening of a temperature assurance lab in Singapore on May 22, 2019, to support growth in the life sciences. It is the company's first such facility in the Asia Pacific region.

The Singapore lab, along with Sealed Air's temperature assurance lab at the company's U.S. headquarters, brings together Sealed Air's proven expertise in product packaging and its digital services portfolio to provide end-to-end temperature assurance solutions for pharmaceutical and biological product safety and consistency throughout the supply chain.

Supported by a grant from Singapore's Economic Development Board, Sealed Air's new lab will focus on the application design and testing of custom packaging solutions that protect temperature-sensitive biological and Pharma products for the Asia Pacific region's life science and logistics partners. Customized solutions will be developed based on internal payload type, thermal needs, external temperature profiles, shipping lanes and delivery duration.

Specific lab capabilities include:

- Cold chain materials research and development

- Thermal shipper design and pack-out configuration
- Digital thermal simulation and modelling
- Thermal testing
- Customized solution reports certified by the International Safe Transit Association (ISTA) standard 20 methodology

“Leveraging Sealed Air's suite of solutions that provide thermal insulation for up to 120 hours, the Singapore lab will provide companies with a one-stop solution for temperature assurance packaging requirements,” said Susan Bell, Sealed Air's Vice President and General Manager of Bio Thermal Assurance. “Singapore's position as a regional bio-pharmaceutical hub, and the city's excellent connectivity and infrastructure make this location a conducive environment from which Sealed Air can serve customers.”

In the Asia Pacific region, the growing life sciences industries are creating opportunities and challenges for one of the most rigorous and demanding segments of logistics is 'cold chain management'. For these industries, the stakes are high if drug safety is compromised. On average, products go through more than 15 handoffs throughout the supply chain journey and maintaining the desired temperature range for a predefined time is essential to the integrity of temperature sensitive items.

During the launch, Sealed Air exhibited various temperature assurance solutions:

TempShield™ Reflective Foil bubble solution: Reflective foil Bubble bags, liners and covers, available in various size to full fill and optimize packing efficiencies based on the dimension of the packaging product. Cost effective metalized pouches, pallet covers and leak resistant gusseted liner exhibit emissivity and extends the shelf life of the packed item.

TempGuard™ Curbside recyclable Thermal Insulation: Highly customizable box liner with superior insulation properties maintains temperature up to 24 to 48hr for shipping perishable products. Pre-packaged, temperature sensitive goods are provided superior thermal insulation by a heavy uniform inner padding kraft paper and recycled newspaper construction. The padded box liner cushions protect from physical damage and absorb moisture. This 100 % of recyclable solutions target the quick turn pharmaceutical market.

TempPreserve™ Eco-friendly foam insulative material: Easily fabricated and engineered superior insulative material is smart, sustainable and suits individual requirements. These easy to assemble units' serves space optimization, thermal performance and optimize distribution cost.

KevoThermal™ Vacuum Insulation Panels (VIP): Offering excellent thermal protection for high-value packaging solutions, it comprises a low-density core material encapsulated in a low conductivity protective barrier film. Packaging ensures evacuation of air for higher thermal performance protecting biological samples or pharmaceutical products throughout a prolonged journey. VIP's have a thermal performance with an R-Value of 40.0, ensuring the temperature maintenance of payload up to 120hr. VIP can operate anywhere between -80°C up to 60°C and is expected to have 5 recyclable lifetimes.

TempTRIP® Temperature Monitoring System: Temperature fluctuation can occur anytime during shipment of a product from the manufacturer to the customer. A TempTRIP® tag enables continuous temperature monitoring with valuable data on any possible variation in temperature during the supply chain. Sealed Air has adopted the latest Bluetooth technology in combination with a Cloud-based monitoring service to provide cost-effective, flexible temperature monitoring, providing visibility at every decision point. Alerts are sent to key stakeholders at every decision point of the journey. Over 12,000 temperatures can be recorded with easy storage of 12 weeks data supported by 3-5yr battery life.

“The Singapore lab signifies Sealed Air's commitment to doubling its rate of innovation and accelerating its investment in sustainability,” said Sealed Air's Onat Bayraktar, Vice President, Asia. “As e-commerce surges and online pharmaceutical sales increase across the globe, the supply chain is getting more complex. Sealed Air's goal is to address our customers' fulfilment challenges by ensuring product safety and reducing product loss throughout the supply chain.”

Sealed Air is also concerned with the environmental impact by packed product's shipping cycle. Sealed Air has pledged to design and advance towards innovative packaging solutions to produce 100% recyclable or reusable products by 2025.