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KANEKA CORPORATION

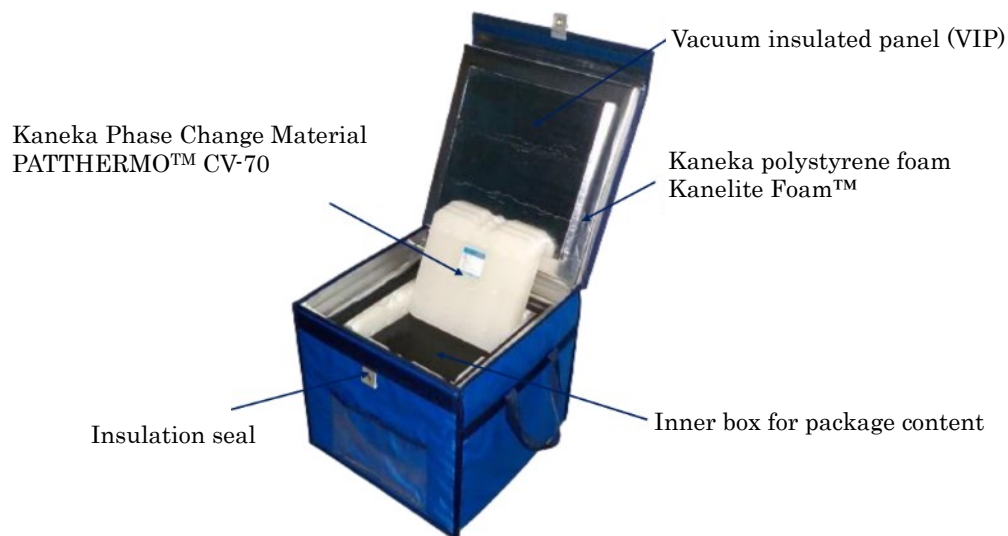
Kaneka Uses Phase Change Material to Achieve Temperature Controlled Shipping
at Temperatures of -60°C and Below
- A New Alternative to Dry Ice -

Kaneka Corporation (Headquarters: Minato-ku, Tokyo; President: Minoru Tanaka) has made temperature controlled shipping at temperatures of -60°C or below possible without the use of dry ice by combining Kaneka Phase Change Material PATTHERMO™ CV-70 (referred to below as "PATTHERMO™ CV-70"), which has a melting point of about -70°C, and Temperature Controlled Package TACPack™ Premium (referred to below as "TACPack™ Premium"), which offers excellent thermal performance.

Shipping articles at temperatures of -60°C and below is primarily done using dry ice, but due to carbon neutrality considerations, there is a growing need within the logistics industry for an alternative. Dry ice supply and demand are strained, especially in summer months, dry ice presents safety management challenges for those that handle it, and the Civil Aeronautics Act places limitations on the amount of dry ice that can be loaded onto aircraft.

The recently developed PATTHERMO™ CV-70 is a Phase change material with a melting point of about -70°C, achieved through a novel combination of inorganic compounds. It will contribute to new shipping approaches as a dry ice alternative and will help reduce CO₂ emissions. It can be repeatedly reused, which will also help cut shipping costs.

Temperature controlled packages are used for the delivery of COVID-19 vaccines, which require rigorous temperature management, to vaccination facilities. They help ensure that vaccination efforts proceed smoothly. With the growth of regenerative medicine and biopharmaceutical products, which must be transported at freezing temperatures, proper temperature maintenance is becoming an increasingly important part of medical product logistics. Kaneka will continue to offer temperature management solutions, thereby improving the quality of medical treatment and people's lives and contributing to the achievement of carbon neutrality.



Temperature Controlled Package TACPack™ Premium
(using PATHERMO™ CV-70)

PATHERMO™ and TACPack™ are trademarks of Kaneka Corporation and Tamai Kasei Co., Ltd.