



Enjoy Your Favorite Foods Thanks to Rogers and ARLON® Silicone

Customer Problem:

Hot and crispy french fries may be one of the most popular comfort foods in the world. However, if hot dishes are not served immediately, they must be kept at an elevated temperature to preserve freshness and promote food safety. Hence, hot and crispy french fries could turn into sad and soggy french fries. If food cools down enough for a prolonged period of time, not only does the freshness of the food suffer, but it also potentially becomes an environment in which pathogens could grow.

To maintain freshness and food safety, manufacturers use food warmers or holding stations to keep food at an optimum temperature. One manufacturer sought to improve their food warming equipment design by including a flexible heater substrate in their product. The heater substrate was tasked with being able to provide the utmost material flexibility and accommodate a wide range of temperature and range requirements. To keep costs low, heat transfer needed to be maximized and power consumption minimized.

The Rogers Solution:

ARLON® Silicone Dielectric Substrates from Rogers have a thin and flexible construction that easily fits into tight spaces and complex geometries. That versatility makes it ideal for applications in food service equipment such as warming cabinets, drum containers that hold liquid food products, and rolling racks. ARLON Substrates also offer impressive dielectric properties which increase heating speed and decrease power consumption, lowering the overall cost of maintaining high temperatures.

With strict safety standards that are ideal for this application, ARLON substrates are also extremely versatile, withstanding temperatures up to 232°C (450°F). In addition, the product is UL-rated to 220°C (428°F) RTI.

Result

ARLON Silicone Dielectric Substrates were selected by the manufacturer due to their excellent material properties and an ability to meet the manufacturer's stringent design specifications. As a result, the food warming and holding stations that incorporate this flexible heater help keep food warm, fresh, and safe for extended periods of time before serving.