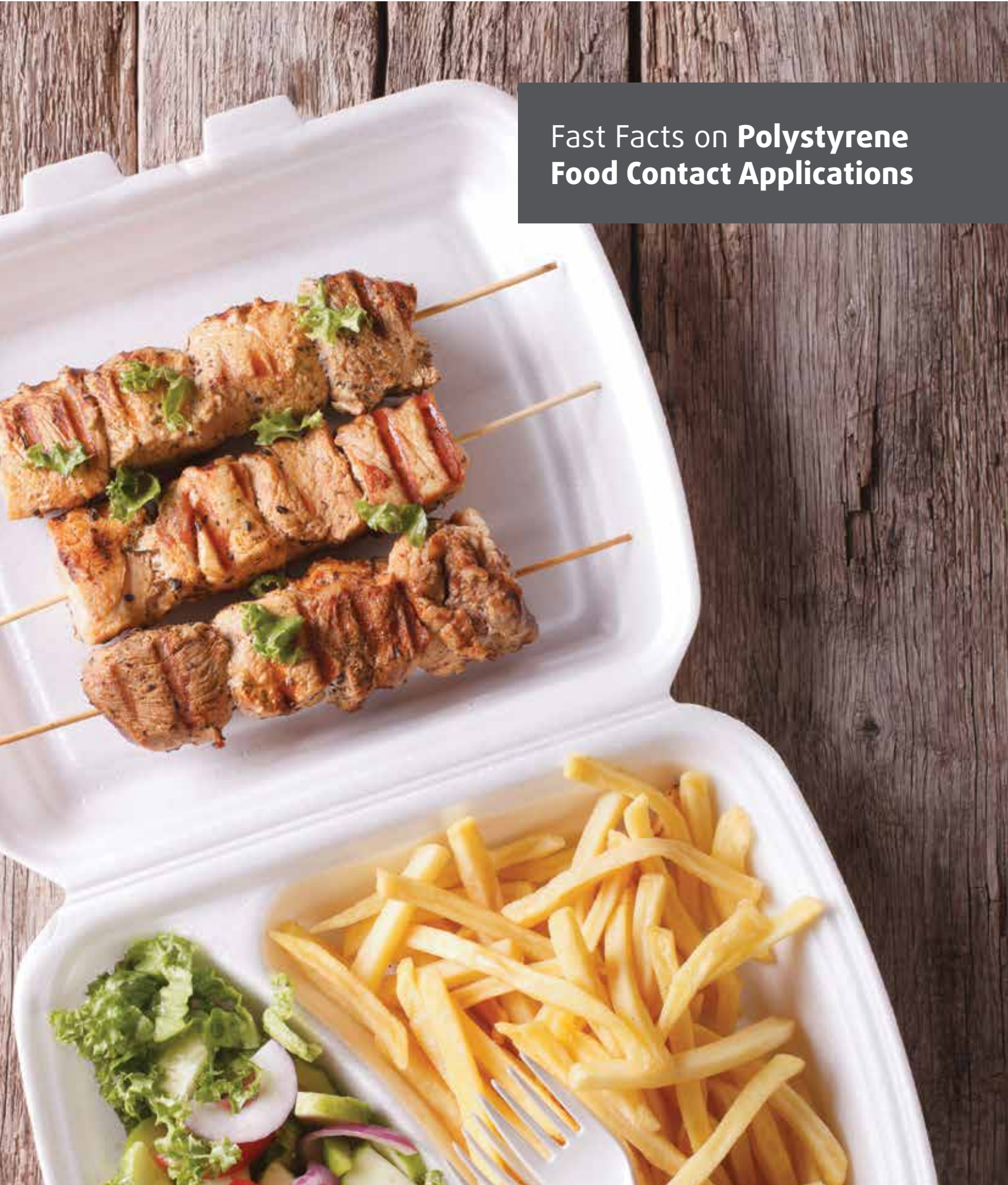




TRINSEOTM

**Fast Facts on Polystyrene
Food Contact Applications**



Polystyrene (PS) is a versatile plastic used to make a variety of consumer products. Its hard, solid nature is particularly useful for items requiring clarity and stability, such as food packaging and laboratory equipment. It also features as a common raw material in home appliances, consumer electronics, automobile parts, toys, packaging, and medical applications.

When made into a foam material valued for its insulating and cushioning properties, polystyrene foam is mostly used in foodservice, packaging, and building insulation. It is commonly used in food contact applications, such as trays for frozen meat or boxes for mobile meals.

Fast Facts on Polystyrene Food Contact

✓ Styrene ≠ Polystyrene

“Styrene should not be confused with polystyrene (foam)”

The U.S. National Institutes of Environmental Health Sciences



“Polystyrene and styrene are different substances. Although polystyrene is made from styrene, equating polystyrene with styrene is like equating a diamond with carbon. They’re not the same substance.”

American Chemistry Council

✓ Polystyrene is Considered Safe in Foodservice Packaging

“Let me put your mind at ease right away ... [the levels of styrene from polystyrene containers] are hundreds, if not thousands, of times lower than have occurred in the occupational setting...In finished products, certainly styrene is not an issue”

The U.S. National Toxicology Program

“The scientists concluded that there is no cause for concern from exposure to styrene from food or from polystyrene used in food contact applications, such as packaging and foodservice containers”

Harvard Center for Risk Analysis

✓ A Widely APPROVED Packaging Material

Numerous authorities in Japan, China, U.S., Europe, Indonesia, and more, have approved polystyrene as a safe material for use in food contact applications. These organizations include:

- Japanese Ministry of Health, Labour and Welfare
- Ministry of Health of the People’s Republic of China
- U.S. Federal Food and Drug Administration
- European Food Safety Authority
- Indonesia National Agency of Drug and Food Control



Q: Why Polystyrene Food Packaging?

Clean, Hygienic & Non-porous

Approved by the U.S. Federal Food and Drug Administration for food contact since 1958, polystyrene food packaging has been an important factor in maintaining good public hygiene for grocers and consumers. Meat, poultry and seafood are commonly packaged using polystyrene foam trays to keep liquids and potentially harmful bacteria from leaking onto display surfaces and into consumers' hands.



Lightweight

95-98% of polystyrene foam is air, minimizing transportation costs and damage rates. As a suggested alternative for polystyrene foam, fiber-based foodservice products weigh an average of 1.5-4 times more. The lighter weight of polystyrene also allows for greater energy efficiency.



Easily Processed

Polystyrene is an economical thermoplastic that is simple to process and offers good optical clarity, high gloss, and good dimensional stability and rigidity.



An Effective Insulator for Food Safety

When packaged in polystyrene, hot foods stay hot, cold foods remain cold, and fresh foods keep fresh. This is due to polystyrene's excellent insulation to maintain food temperature, contributing to food safety.



Prolongs Shelf Life

About one-third of all food produced worldwide, worth around US\$1 trillion, is wasted in the food chain. When this figure is converted to calories, this means that about one in four calories intended for consumption is never actually eaten. Polystyrene packaging reduces food waste by protecting and preserving food as it moves from farm to fork.



Strong, Durable & Shock-absorbent

When processed, polystyrene are expanded to between 40 to 50 times their original volume, turning air into a strong and efficient packaging material. Consumers can enjoy the benefits of sturdy and strong polystyrene foodservice containers.



Economical

Polystyrene can deliver high levels of performance, quality and cost effectiveness at any temperature, unlike other alternatives.



A: It insulates better, keeps food fresher longer and costs less than other alternatives.



More Facts about **Polystyrene Foam**



Uses Less Resources

Energy use: Polystyrene foam products consume significantly less energy than alternatives – half as much as wax-coated paperboard cups and one-third as much as (corn-based) PLA clamshells.

Water use: Polystyrene foam products use significantly less water than some alternatives – up to four times less than PLA clamshells.*



An Excellent Energy Source

High-energy content materials like polystyrene provide heat and light for neighboring communities. At over 16,000 BTUs per pound, polystyrene contains twice the energy of coal and burns cleanly.**



Is Recyclable

Polystyrene foam foodservice packaging is already being recycled in many communities. For example, in California, 20% of the population has access to curbside foodservice foam #6 recycling. One in four Canadians have access to municipal recycling for foam polystyrene. One in two Canadians have access to municipal recycling of rigid polystyrene. In Germany, 98% of returned polystyrene foam packaging is recycled, and in the UK there are 25 sites which recycle polystyrene foam.



A Lighter Footprint

Polystyrene foam cups weigh between two to five times less than comparable paper packaging products. This means fewer air emissions when transporting products.**

* Franklin Associates: Life Cycle Inventory of Foam Polystyrene, Paper-based, And PLA Foodservice Products

** American Chemistry Council: Take a Closer Look at Today's Polystyrene Packaging

CUSTOMER NOTICE

Customers are responsible for reviewing their manufacturing processes and their applications of Trinseo products from the standpoint of human health and environmental quality to ensure that Trinseo products are not used in ways for which they are not suitable. Trinseo personnel are available to answer questions and to provide reasonable technical support. Trinseo product literature, including safety data sheets, should be consulted prior to the use of Trinseo products. Current safety data sheets are available from Trinseo.

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