

# Faster Cooling. Fresher Eggs.



Give your customers peace of mind by delivering fresher, safer, longer-lasting eggs—rapidly cooled in Tosca’s revolutionary RPCs. Specially designed to allow optimal airflow, our RPCs reduce the risk of Salmonella contamination in ways that corrugated can’t, ensuring only the highest quality eggs for your customers.

## Independently Proven to Cool Eggs Faster Than Corrugated

Results of an independent scientific study<sup>1</sup> show that RPCs can cool freshly laid eggs to 45°F six times faster than corrugated cases.

### Why is this important?

- Eggs begin to deteriorate the moment they are laid in the chicken house. Rapid refrigeration helps prevent egg moisture loss and the release of carbon dioxide that changes the egg’s Ph and diminishes its freshness and quality.
- Research<sup>2</sup> has shown that the sooner freshly laid<sup>3</sup> eggs are chilled to 45°F, the less likely they are to carry or promote the growth of illness-causing bacteria like Salmonella. Rapid cooling not only helps prevent Salmonella bacteria from reproducing inside an egg (keeping the bacteria below the illness-causing threshold), but it also makes it easier for consumers to kill any bacteria that remain just by cooking the egg—even at lower cooking temperatures.

## Benefits of Tosca Egg RPCs

- **Safer – Rapid cooling leads to fewer bacteria and, therefore, safer eggs entering the food chain**
- **Improved Efficiency – Less time needed before eggs are sufficiently cooled, allowing faster shipment to customers**
- **Quality Control – Quick chilling creates fresher, higher quality eggs with extended shelf life**

1. Tosca Egg RPC Cooling Assessment, April 2014, Sensitech. The study’s methodology and results were reviewed by leading poultry researcher and egg safety expert Dr. Kenneth Anderson of North Carolina State University.

2. Salmonella Enteritidis Risk Assessment: Shell Eggs and Egg Products, July 1998, USDA-FSIS.

3. Between 20 minutes and 24 hours after lay.

*"With eggs being cooled more rapidly, there is a benefit to the safety of the eggs entering into the food chain."*

Dr. Ken Anderson, North Carolina State University

### Study Highlights

#### Objective

The 2014 Sensitech study set out to measure and compare the cooling time of eggs packaged in Tosca RPCs and corrugated cardboard cases.

#### Overview

The study tested six pallets of freshly laid eggs—three in corrugated cardboard cases and three in Tosca RPCs. Researchers installed special temperature monitoring technology directly inside the egg shells and placed all six pallets inside a cooling chamber for seven consecutive days, where the temperatures ranged between 39°F and 45°F.

#### Results

Eggs packaged in Tosca's RPCs **cooled further**, at an overwhelmingly **faster rate**, and **more uniformly** than eggs packaged in corrugated cases—regardless of whether the eggs were placed in molded pulp or foam cartons.

In fact, Tosca's RPCs were able to cool eggs to 45°F six times faster than corrugated boxes.

How long did it take the eggs to reach 45°F?		
Pallet Placement	Corrugated	Tosca RPC
Core	3.6-6.0 Days	0.6 - 1.1 Days
* Results from 2014 Sensitech study		

### Ensure egg safety from the henhouse on with Tosca's rapid cooling RPCs.

- Protection against bacteria-borne illness and early onset egg deterioration
- Less lag between cooling and customer shipment
- Longer egg shelf-life for customers

Want more information?

Contact Tosca today: 920.617.4000  
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