

# Container Heat Penetration Model – ‘CTemp’

## Project Overview

CTemp is a commercially available program developed in conjunction with Campden BRI which is for calculating temperatures within packaged foods during thermal processing.

Using the finite difference calculation method CTemp can be used to predict temperatures and lethality's in foods that that heat by conduction, convection or broken heating modes.

Process can be optimised against defined quality criteria (e.g. browning reactions) by adjusting the retort profile to maximize or minimize the calculated quality parameter.

Process deviations can be assessed retrospectively, allowing informed decisions about the destination of batches of product. “What-if “analysis to simulate the worst likely production conditions; makes process establishment safer and less time consuming.

Calculation of energy usage and CO2 produced during process cycles

CTemp can be applied to:-

- Products packaged in metal cans, glass jars, pouches or trays.
- Processing media such as steam, steam/air, and water immersion or raining water.
- Batch or continuous processes for packaged foods in retorts or hydrostatic and reel and spiral cookers.

For more information contact [www.campdenbri.co.uk](http://www.campdenbri.co.uk)

