

O7E Multi-Cell Ageing Oven



Specification O7E Multi Cell Ageing Chamber

Weight	103 Kg
Dimensions	670 x 550 x 870mm (w x d x h)
Max. power	2.1kW
Number of Cells	7
Cell size diameter	75mm
Length	305mm
Temperature range	60 - 250 °C
Air flow	1-10 ft3/hr
Air temperature Stability	± 0.2 °C
Standards	BS ISO 189

- Temperature range 60 – 250°
- Seven test cells
- No migration between cells
- Auto-timing temperature control

This cell method of ageing exposes a test sample to elevated air temperatures, allowing its physical properties, such as tensile strength, to be measured and compared with those of an un-aged sample.

Unlike conventional ovens, in the Wallace O7E individual samples are aged in separate cells, preventing any contamination from adjacent samples through the migration of volatile products which can be found in many rubber compounds.

The oven consists of a cast aluminum block containing seven cylindrical vertical cells. Avoiding the need for valuable bench space, the O7E is designed as a complete unit with its own stand and castor wheels.

Preheated air at a controlled temperature is pumped from a manifold through a calibrated opening into the bottom of each cell, ensuring even distribution.

To avoid contamination from re-circulation, the air is discharged to the atmosphere through the two covers at the top of each cell.

The test samples are suspended from the inside of the top cover.

Accurate Temperature and Airflow

The oven includes a PID temperature controller with digital display. The controller is equipped with auto-ranging tuning, achieving a very high level of accuracy and stability at the working temperature.

An RS 232C communication option with serial interface is offered, allowing connection to a PC .

Alarms on the controller abort the tests if the temperature goes outside its operating band, as can occur after a mains power failure.

The oven is fitted with thermostats, which will switch off the power supply if the cell temperature exceeds 280°C.

A valve positioned on the top of the control module regulates the airflow, which is measured accurately by a flow meter.