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RapidOxy

Oxidation Stability Tester

::: Oxidation Stability



RapidOxy

The ultimate solution for oxidation stability investigation

Safety & Isolation Hood

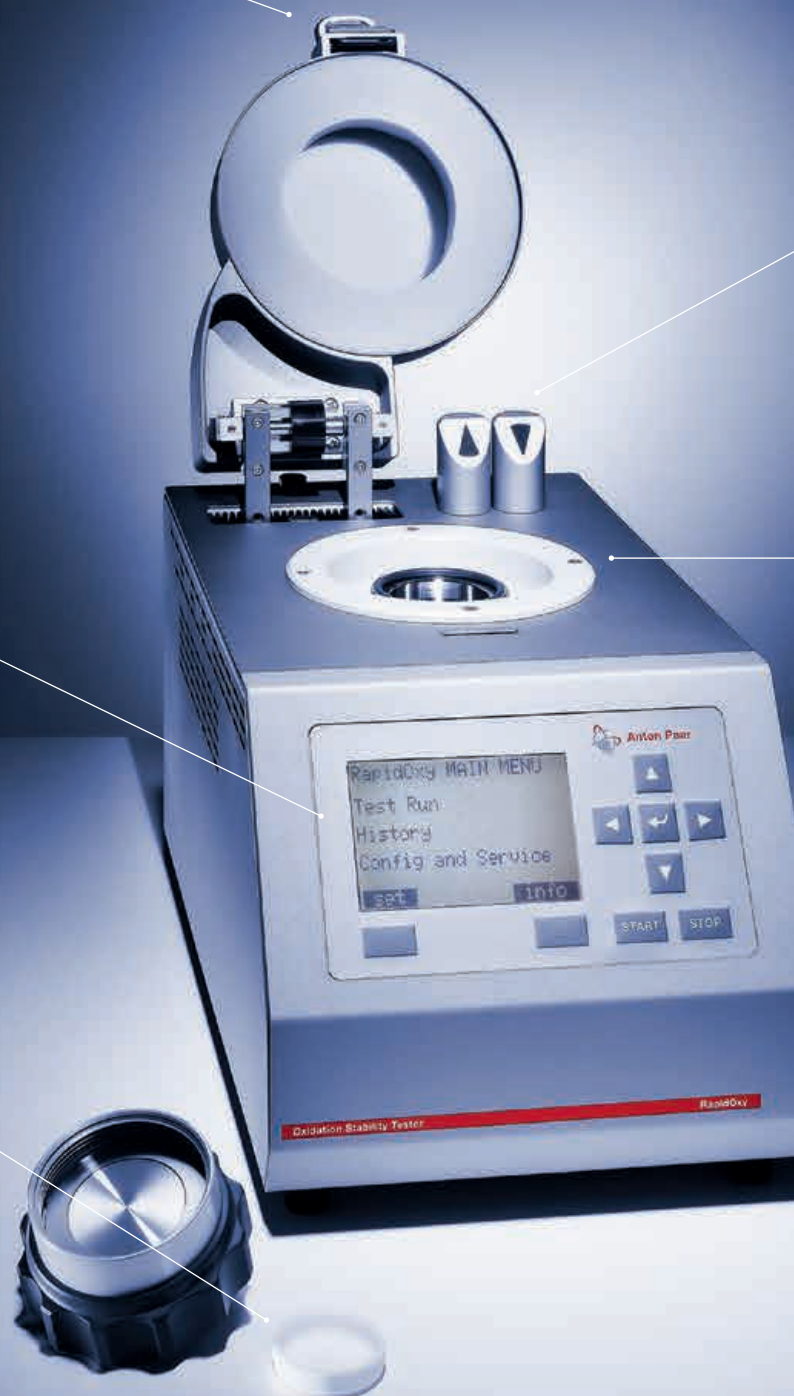
For maximum user safety and perfect temperature stability

Display

Real time display of pressure curve and current sample temperature

PTFE Dish

No need of preliminary sample preparation – PTFE dish for solid and semi-solid samples



Measure the Whole Sample - No Preparation Required

Oxygen Connection

Automatic charging and releasing of oxygen – limited to an inlet oxygen pressure of max. 8 bar

Test Cell

Stainless steel test cell with excellent chemical resistance

Oxidation Stability

In contact with atmospheric oxygen, the chemical decomposition of samples containing natural fats or other lipids begins. Oxidation is one of the most common reasons for product degradation.

Oxidation stability characterizes the resistance of the sample to oxidation. It is a necessary requirement for shelf-life investigations, quality control of incoming goods or during product development.

Test Principle

RapidOxy accelerates the oxidation process by increased temperature and oxygen pressure. It represents an alternative test method to determine the oxidation stability more rapidly and without preliminary sample preparation.

After placing the sample in the test cell and sealing it, oxygen pressure is applied before heating the sample. The sample will consume the oxygen and the break point can be measured. This is the point in the pressure-time curve that is preceded by a defined pressure drop.

This is reported as the induction period (IP), the time which is elapsed between the start of the test and the break point, which indicates the oxidation stability of the tested sample.

Applications

RapidOxy works directly on the whole sample, making preliminary sample preparation unnecessary. It is an accelerated test method for testing the oxidation stability of:

- ▶ Cosmetics like lip balm, hand cream, body lotion, etc.
- ▶ Vegetable and animal oils and fats like margarine, butter and edible oils
- ▶ Foods like mayonnaise, sauce, cream, cheese, biscuits, etc.

Advantages

- ▶ Minimum test time
- ▶ Small sample volume
- ▶ No sample preparation necessary
- ▶ No need of expensive and environmental hazardous reagents
- ▶ Fast and easy cleaning
- ▶ Based on patented test principle of ASTM D7545 / EN 16091
- ▶ Safety approved by the Federal Institute for Materials Research and Testing

Technical Specifications

Application range	Ambient to +200 °C
Pressure range	Typically 700 kPa
Sample volume	Typically 5 mL
Interface	RS232
Power supply	115/230 V, 50/60 Hz
Dimensions	240 mm x 400 mm x 260 mm (W x D x H)
Weight	11 kg

