

# Oxidation **stability** **tester**

RapidOxy Series



# Simple. Quick. Efficient.

FIND OUT MORE



[www.anton-paar.com/apb-rapidoxy100](http://www.anton-paar.com/apb-rapidoxy100)

Products in many industries can suffer from oxidation, which affects properties, quality, or performance. Eliminate degradation with RapidOxy 100 and RapidOxy 100 Fuel – the only Rapid Small-Scale Oxidation Test instruments on the market. They deliver reliable results using a unique measuring principle: Artificial acceleration of the oxidation process via increased temperature and an excess of pure oxygen.

A measurement setup taking less than five minutes, easy wipe-cleaning of the test chamber, test times up to 20x faster than comparable methods and many many times faster than traditional ones, and fully automatic functionality guarantee operator convenience and high sample throughput.

Investigate further with the powerful OxyLogger 100 desktop software: Automatic calculation of activation energy and oxygen consumption, estimation of shelf life, and many more useful features take product stability to a new level.

**ENHANCE** PRODUCT STABILITY WITH OPTIMAL FORMULATION

**ELEVATE** EFFICIENCY AND MAXIMIZE SAMPLE THROUGHPUT

**EVALUATE** STORAGE AND PACKAGING CONDITIONS

**ENSURE** QUALITY THROUGHOUT SHELF LIFE

**ELIMINATE** MANUAL STEPS, EXCESS EFFORT, AND LONG TESTING TIMES

## FOOD

Applicable to a broad variety of products with no prior sample preparation



## FLAVORS AND FRAGRANCES

Ease of use during oxidation-stability optimization of formulation and antioxidants



## COSMETICS AND PHARMACEUTICALS

Guarantee of API effectiveness throughout shelf life, independent of product consistency



## PETROLEUM

Strict adherence to standard methods at the push of a button





# One of a Kind

The fully automatic measurements of RapidOxy 100 and RapidOxy 100 Fuel leave no room for error. From measurement setup to super-quick, simple wipe-cleaning of the test chamber, every step is incredibly convenient.

## Efficiency meets functionality

The RapidOxy 100 measurement setup takes less than five minutes. Wipe-cleaning of the test chamber is super-quick. The instrument is ready for the next test right away thanks to rapid Peltier recooling. No sample preparation is necessary. The glass dishes are re-usable and ensure convenient handling of semi-solid and solid samples. You will easily find space for the compact 20 cm by 40 cm oxidation stability testers in your lab. Moving the device, which weighs less than 9 kg, is easy.

## An unparalleled variety of applications

With RapidOxy 100, the range of samples that can be investigated in terms of oxidation and storage stability is huge. From quality control to investigation of raw materials, finished products, formulation, packaging, storage, or monitoring of oxygen uptake speed, everything is possible. And the OxyLogger 100 desktop software enables automatic shelf life estimation, calculation of activation energy, and much more.

RapidOxy 100 Fuel delivers precise results for spark ignition fuels, all kinds of diesel fuels (from B0 to B100), and heating oils according to standard methods. The induction period for liquid fuels is only a fraction of that associated with other oxidation stability methods. In fact, testing with RapidOxy 100 Fuel is 20x faster than the alternative method included in the diesel specification EN 590.

## Supreme safety standards

As soon as you start a measurement with the simple push of a button, the magnetic lock of the safety hood is automatically activated until the recooling and controlled pressure release is finished after the test run. During the measurement, the over-temperature and over-pressure shut-off guarantees maximum lab safety. Instrument safety is approved by the German Federal Institute for Materials Research and Testing.

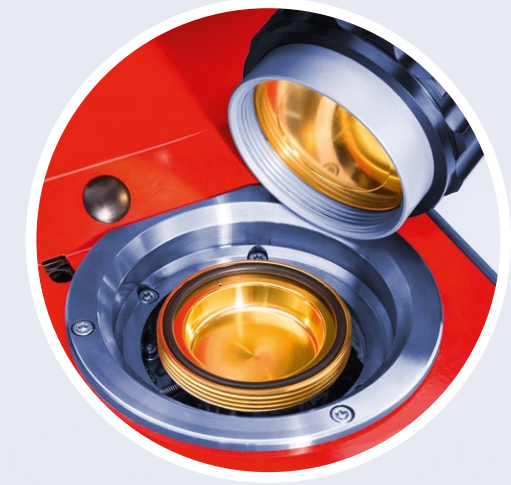
## A rapid method with excellent reproducibility and repeatability

With their high temperature range of up to 180 °C and tight temperature control, RapidOxy 100 and RapidOxy 100 Fuel deliver results in a fraction of the time compared to other accelerated aging methods. The only manual step of the measurement is filling in the sample – leaving no room for errors. Add to this accurately monitored pressure in the closed system throughout the measurement, and the outcome is highly precise test results.



↑  
**RapidOxy 100**

RapidOxy 100 has a high-quality stainless-steel test chamber meeting the requirements of a variety of industries and all sample consistencies – from fluid to semi-solid and solid.



↑  
**RapidOxy 100 Fuel**

RapidOxy 100 Fuel, with a high-grade, gold-plated aluminum test chamber, is ideal for fuel testing, from diesel (B0-B100) to gasoline, according to standard methods.





# OxyLogger 100 Software: Discover More

The instrument's desktop software OxyLogger 100 is a powerful tool for exploring additional information from the measurement data:

- Simple comparison of products to choose the optimal formulation or screen antioxidants
- Estimation of product shelf life
- Calculation of activation energy



We're confident in the high quality of our instruments. That's why we provide **a full warranty for three years.**

All new instruments\* include repair for three years. You avoid unforeseen costs and can always rely on your instrument. Alongside the warranty, we offer a wide range of additional services and maintenance options.

\*Due to the technology they use, some instruments require maintenance according to a maintenance schedule. Complying with the maintenance schedule is a prerequisite for the three-year warranty.

	<b>RapidOxy 100</b>	<b>RapidOxy 100 Fuel</b>
	↓	↓
Standard methods	ASTM D8206	ASTM D7525, ASTM D7545, EN 16091, and IP 595

OPERATION		
Sample volume	5 mL (liquids) or 4 g (solids)	5 mL (only liquids)
Typical samples	<ul style="list-style-type: none"> <li>- Edible oils and fats, food emulsifiers, oil- and fat-containing food</li> <li>- Cremes, lotions, emulsions, vegetable oils, cosmetics emulsifiers</li> <li>- Flavors and fragrances</li> <li>- Lubricating oils</li> <li>- Lubricating greases (according to ASTM D8206)</li> </ul>	<ul style="list-style-type: none"> <li>- Fuels</li> <li>- Gasoline</li> <li>- Diesel</li> <li>- FAME</li> <li>- Diesel/FAME blends</li> </ul>

PRESSURE	
Initial pressure range	Ambient – 8 bar
Operational pressure range	Ambient – 18 bar
Accuracy	±0.25 %
Resolution	10 mbar

TEMPERATURE	
Range	Ambient – 180 °C
Accuracy	±(0.1 + 0.0017 × T(°C))
Resolution	0.01 °C
Data capacity	100 measurements

OPERATING REQUIREMENTS	
Power supply	220 V - 240 V AC, 50/60 Hz 100 V - 120 V AC, 50/60 Hz
Heating power	500 W (2 × 250 W)

DIMENSIONS AND WEIGHT	
Dimensions	Approx. 200 mm × 410 mm × 250 mm (W × D × H)
Weight	Approx. 8.6 kg

FURTHER FEATURES	
Connectivity	1 × USB at the front/right side, 1 × USB at the back of the instrument, 1 × LAN

