



FOOD LAB

Quality control systems for food and beverage



OxiTester: FFA, Peroxide Value, K270, Polyphenols in Oil

OxiTester is a **fast, simple and reliable** analysis system that can be used to control the quality of vegetable oils in all of the stages of the oil production process that is directly in the **oil mill**, in the **oil processing plant** or at the time of purchase.

In fact, OxiTester can be used to quickly test oil by operators who have no experience in chemical tests, with no need of a dedicated laboratory.

System



The analytical system includes:

- A **spectrophotometric analyser** with solid state emitters (LEDs) and reading and incubation cells thermostated at 37° C.
- A **Kit** of pre-filled, disposable reagents with a low toxicity developed by the research laboratories of CDR and a 12-month shelf-life.
- **Pipettes** to simplify the collection of the samples.
- **Operator's manual and functional illustrated sheets.**



OxiTester is supplied with a 3 year warranty.

Accessories

-  **Temperature control system for oil mills:** if connected to OxiTester, this system enables to monitor the temperature during the different stages of the pressing process. It includes a converter and a maximum of 4 probes, and is able to provide information on the oil temperature during its extraction in the oil mill.
-  **Extraction system:** this innovative, practical and fast system enables to directly obtain a sufficient amount of oil to test its quality from the drupe or hard-shelled dry fruit, by means of a cold pressing process that does not involve the use of solvents. The leading companies that produce hard-shelled dry fruit or that use it as main ingredient have already chosen this method and left aside traditional testing methods that involve the use of toxic solvents (Soxhlet).

OxiTester is able to test very small oil samples as is and to provide the following information:

- **Free Fatty Acids (FFA)** 1 minute
- **Peroxide Value** 4 minutes
- **Poliphenols/Oil Stability Index in olive oil** 5 minutes
- **K270** 6 minutes

This system significantly reduces testing time because it enables to test up to 14 samples simultaneously, which means that it is possible to perform **80 FFA tests, 70 Peroxide Value tests, 30 Poliphenols tests, 70 K270 tests** in an hour.

K270 can be measured only via **OxiTester K270**

Guaranteed Quality

The reliability of OxiTester has been confirmed by a series of comparative tests, performed by certified leading testing laboratories.

In a study entitled "[A new method for the determination of the oxidative stability of pure olive oil](#)", carried out by Minerva S.A. and Asteriadis S.A., in collaboration with the **University of Athens** and published in the **Journal of AOAC International**, the OxiTester method for the determination of polyphenols/stability index was validated and compared with the official method for the determination of the stability of oil (Rancimat).

The studies have demonstrated that the **accuracy of the analytical results of OxiTester** parallels **reference methods**, but that OxiTester is much easier to use and provides the results in shorter time.