CDR FoodLab® for bakery products





Analyses on bakery products

Acidity (FFA)
Peroxide value (PV)
p-Anisidine value (AnV)

WHAT IS THE CDR FOODLAB® SYSTEM?

CDR FoodLab® is composed of a thermostated analyzer based on photometric technology that uses solid-state emitters (LED); a kit with disposable pre-filled reagents with low toxicity, in package of 10 tests, 1 year shelf life, developed and produced by the research laboratories of CDR.

ANALYSIS KITS

The use of pre-filled reagents and the analytical methods, developed by the research laboratories of CDR, allow: quick and easy sample preparation, when needed at all; analytical methods extremely fast and easy; removing all needs for calibration procedures.



REDUCED TESTING TIMES

CDR FoodLab® allows accelerating analysis procedures. It is possible to analyze 16 samples at the same time and constantly monitor the production process, obtaining exact and accurate answers in just a few minutes.

The multitasking mode allows to manage the determinations of several analytical parameters at the same time. It allows the system to process one analysis and to start another one at the same time, with the possibility to go back to the first one at any moment.



The measuring system guarantees **high sensitivity**, a **wide measuring range**, and an **excellent repeatability of the test results** thanks to the photometric technology based on state-

of-the-art **LED emitters** at fixed wavelengths (from ultraviolet to the visible spectrum, up to 6 OD). **The results of the analyses** are **correlated with the reference methods**.



EASY TO USE

The system is designed to be used not only in a laboratory, but real time in the processing plant, even by staff with no previous specific lab tech experience.

The analysis methods are easier than the traditional ones and can be performed in few steps:

- 1 Adding the sample to the pre-filled reagent.
- **2** Following the displayed instructions and if there is ever a doubt, the HELP function will lead you through the process.
- **3** Results are automatically calculated, displayed and printed.

Each test is performed dispensing in the cuvette containing the reagent a determined amount of the sample. Thanks to the reagents created on purpose, it is generated a colorimetric reaction. The result of the test is printed immediately after the elaboration of the photometric reading, in its unit of measure.









CDR FoodLab® for bakery products



HOW TO VERIFY THE OXIDATION OF FINISHED SNACK PRODUCTS IN 4 STEPS IN ORDER TO PREDICTED SHELF LIFE.

Determining the shelf-life of bakery products, snacks and creams no longer requires complicated extractions, toxic solvents, expensive waste disposals and extractor hoods. Risks for the operator are eliminated and the environmental impact is minimized.

In fact with CDR FoodLab®, thanks to a simple cold extraction with watery solution (*CDR Extrafluid*), you can determine the shelf life in a simple and rapid way, monitoring the oxidation status and the rancidity of the oils contained in the different products, through periodic analyses of Free Fatty Acids (FFA), Peroxide Value (PV) and p-Anisidine Value (AnV).



Reagents are pre-vialed, in package of 10 tests, **1 year shelf life**, developed and produced by the research laboratories of CDR.



Grind the product to be analyzed. 2 minutes.



Weight 10 gr. of product and add 5 mL of CDR extrafluid.1 minute.

3 | + | > |

Centrifuge for at least 4800 rpm. 10 minutes.



After the centrifugation take the oil extracted to do the analysis. **5 minutes.**



TESTS	Measuring range	Resolution	Repeatability
Free Fatty Acids	0.01 - 1.10 % oleic acid	0.01%	0.02%
	1.0 - 3.5 % oleic acid	0.1%	0.2%
	1.0 - 26.0 % oleic acid	0.1%	0.5%
Peroxide value	0.01 - 5.50 meqO₂/Kg	0.01 meqO₂/Kg	0.1 meqO ₂ /Kg
	1.0 - 50.0 meqO₂/Kg	0.1 meqO₂/Kg	0.3 meqO₂/Kg
	4.0 - 550.0 meqO₂/Kg	0.1 meqO₂/Kg	3 meqO₂/Kg
p-Anisidine value	0.5 - 100.0 AnV	0.1 AnV	0.2 AnV