

Test Kit

TECHNOLOGIES, INC.

PRODUCT CATALOG

Test Kit Technologies

VERI-FRY® PRO and FS Tests

RAPID TESTS TO DETERMINE OIL QUALITY

TPM Total Polar Materials (3-30%)

WET Water Emulsion Titratables (SOAPS from 5-60ppm)

FFA-75 Free Fatty Acids (0.01-0.7%)

FA-350 Free Fatty Acids (0.2-3.2%)



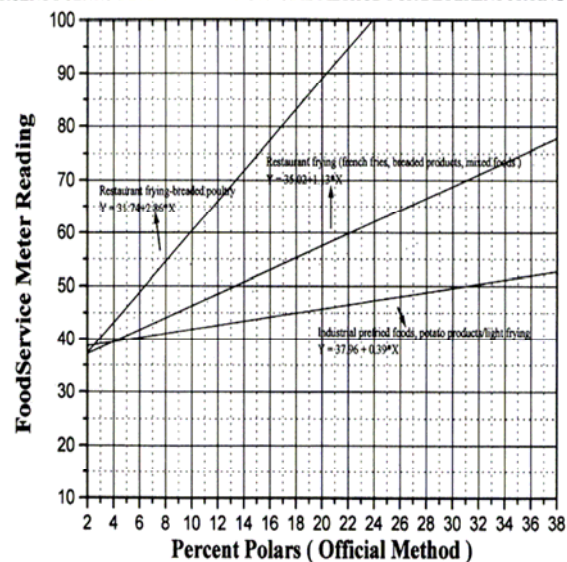
Each test is performed by introducing less than 5 grams of oil into vials containing patented gels. The screwcap vials are supplied 50 to a rack with operating instructions. In the **FFA (%)** and **WET (ppm)** tests, a chart is supplied that correlates the colorimeter's digital readout and the percentage of **FFA** and **WET** present in the oil. Customers can choose to have a custom curve made for the **TPM**. The vial packaging allows each vial to stand upright and can be used for holding and storing the self-documenting completed tests. Overall dimensions of the package are 9.5"L x 4.0"W x 3.5"H. We recommend refrigeration or freezing of the racks of vials between uses.

CUSTOM MADE CHARTS

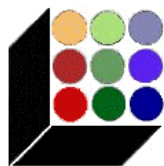
CAL-TPM

Charts that compare typical oil degradation product concentration vs. spectrophotometer readings are included with **WET** and **FFA** vial boxes to graphically show **FFA** and **WET** contents determined in our spectrophotometer's digital read-out. The charts are printed from tests made with the Reference Solutions (supplied separately). In place of our laboratory reference solutions, samples of oil can be tested in our laboratory to ensure that the meter's readings will be calibrated to take account of factors unique to each user's situation, and this step is necessary for the **TPM** test, unless the user is relating the test results to food quality and not actual polar values. Developing a custom chart to correlate oil degradation product concentration in filtered oils to meter read-out ensures that an operator will have the best possible correlation to the quality of the oil being tested.

CORRELATION BETWEEN REACTED VERI-FRY® TPM FOODSERVICE METER READINGS AND PERCENT POLARS DETERMINED BY OFFICIAL METHOD FOR DIFFERENT FRYING SYSTEMS



Sample custom made chart



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CALIBRATION SOLUTIONS & STANDARDS

- REF-WET** WET test solutions - 5, 10, 20, 35, 50 ppm (sodium oleate)
- REF-FFA-75** FFA-75 test solutions - Range: 0.01-0.7% FFA (oleic acid)
- REF-FFA-350** FFA-350 test solutions - Range: 0.2-3.2% FFA (oleic acid)



Known calibration solutions for the **FFA** and **WET** tests are available to ensure that the system reports consistent results. Each set contains five bottles, each with sufficient oil solution for four tests.

TPM calibration standards are available to ensure consistent meter readings.

The Total Polar Materials test, **for official use**, requires that calibrating oil samples first be examined through column chromatography to determine the true polar value correlation with the **VERI-FRY® PRO** meter readings. A custom-made **TPM** calibration chart must be constructed for each specific operation to remove the effects of any chemically interfering materials. Customer provided samples are the basis of TPM calibration so that artifacts and interferences to the **VERI-FRY® TPM** test are included in the analytical program.

SAMPLE HANDLING EQUIPMENT

WARMER (REACTOR) DRI-BATH WAR-ANA-12

At their highest precision use, the **VERI-FRY®** tests are somewhat sensitive to temperature changes and the gel should be tested at $65^{\circ}\text{C} \pm 2^{\circ}\text{C}$. While any controlled heating method is acceptable, warmers are optional but recommended devices that can hold vials at the ideal constant temperature. The vials stand upright and the number of wells allow for an ultra-fast assembly-line testing technique. A thermometer (not included), must be used to set the Warmer's operating temperature. The **TPM** test, used with the **FS** color card or meter, has only to be hot and clear, but requires temperature stabilization for laboratory use.



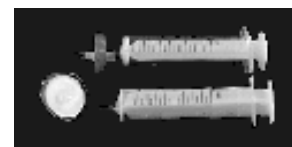
OIL LADLE LAD-01

The **TKT** Teflon® ladle was designed to take a sufficient sample amount for a single test without damaging or contaminating a frying oil sample. Its high resistance to heat transfer and 7" reinforced handle protect workers from burns. We designed it for left or right hand use.



SYRINGES & FILTERS SYR-5 FTR-5

Polypropylene syringes are 4" long and hold ~5ml of oil. Filtering is generally necessary for testing used, abused or contaminated oils, to ensure maximum reliability of **PRO** colorimeter readings. Filtering is required for samples of oil contaminated with sugars and phospholipids. The polypropylene filters remove particles down to 5 microns and offer simple, rapid filtering of heated liquid oils





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MEASUREMENT EQUIPMENT

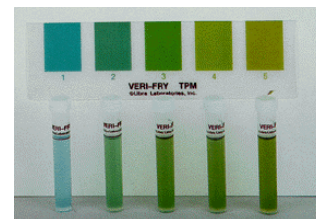
VERI-FRY PRO® SPECTROPHOTOMETERS SP-830-LT

The VERI-FRY® PRO Spectrophotometer is a multi-wavelength colorimeter that passes a beam of light through an inserted vial and shows the absorbance or transmission on a digital readout. The absorbance value is compared to a chart for the test to determine actual concentration. These meters give immediate readings with the press of a button. A production spectrophotometer reads **all** of the VERI-FRY® tests, and also provides determinations for a large number of other colorimetric methods.



VERI-FRY® FS COLOR CARDS VF-CC

A plastic color comparator card is available for the TPM test. Developed primarily for the restaurant industry, it allows for some degree of accuracy in determining oil quality, but lacks the precision of the digital meters. Should customers wish to upgrade to meters to enhance their quality control, the vials used with the TPM color card are also usable in the digital meters.



Contact us for ordering information

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