

Test Kit Technologies

Food Service Deep Frying Operations

The taste of properly cooked fried food is appreciated throughout the world. The odor and flavor of many foods is enhanced by the incorporation of heated oils. Though cultures vary in their use and acceptance of different fats, oils and replacers, all agree on one subject — bad oil produces bad food. Food service locations have to be especially sensitive to serving out-of-specification food since one bad customer experience can drive sales down as word-of-mouth experience and media exposure negates the best-crafted marketing campaign.

A fryer operator needs a tool to make the proper discard of used frying oil a certainty. If oil is discarded early, the economic cost is punishing. Too late discard of oil drives down sales. Some stores separate different foods into different fryers, but then rotate the oils from fryer to fryer. Others fry every type of food in one fryer. Fryers vary in size, design, and capacity according to manufacturers' beliefs about what is necessary to fry specific foods, but then kitchens are transformed by marketplace forces to fry new menus in older equipment. Operators substitute frying oils based on price, availability, suitability, and current nutrition idea; and then back again to counter popular cultural trends. Various regimens of passive or active filtration are instituted to reduce oil usage. Nothing about food service frying stays constant. Even the largest chains find it difficult to maintain their standards in every store.

VERI-FRY® to the Rescue!

The food service industry has evaluated many quick testing methods including oil color matching rods and dipsticks, viscosity and electrical property meters adopted from diesel oil control, pH testing paper wicks, and solvent-based chemistry sets (including our own prior patents). After examining tens of thousands of samples at our research center, we concluded that all those tests were seriously off the mark and did not help operators increase their profits and reduce waste. Food service frying is more about all the parts of the cooking system than about a single property of the frying oil. The test that *tonight* properly predicts the quality of food to be fried in *tomorrow's* lunch rush is the test of choice. Will the breaded chicken be cooked through to the bone or be undercooked and compromise food safety? Will the French fries be golden and crisp, or will they be dark, limp, oil soaked and bitter? When the oil won't be good tomorrow it should be discarded tonight.

The VERI-FRY® food service frying oil quick testing system was invented to solve the real problem faced by food service operators. The need is to produce *consistent* quality fried food. Oil quality always degrades due to heat and oxygen, but the proper discard point of the frying oil always varies according to the nature of the oil and the amount, quality, and type of food fried, and also with the intensity of filtration. The simplest pathway for prediction and control of fried food quality is to include the measurement of food degradation products in the oil test. This is what we have achieved according to independent food service studies. Further, an international collaborative study among regulatory, industrial, and academic laboratories also shows that this same simple VERI-FRY® (TPM) quick test is accurate in measuring oil breakdown products to laboratory standards of accuracy.

A disposable plastic tube, a dropper pipette, and a color-matching card are all the tools you need to gain control of the frying system. With control comes consistent fried food, happy customers, and repeat sales. We believe everyone benefits from using VERI-FRY®!

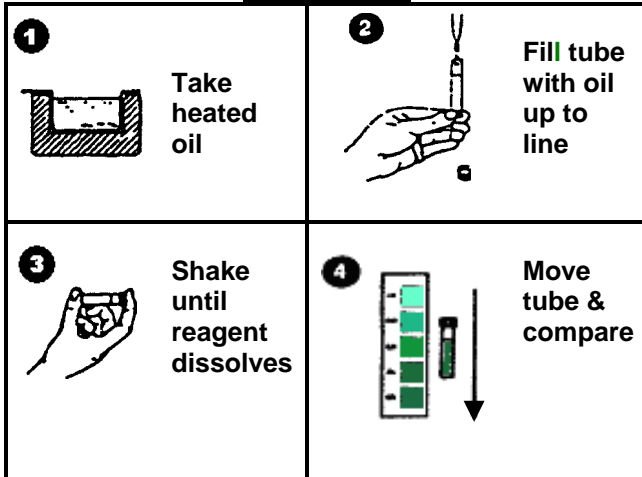
THE VERI-FRY® FRYING OIL QUICK TEST

The VERI-FRY* quick test shows when to discard food service frying oils. Follow the directions to estimate the condition of the oil. Use frying oil to its limit, but discard before over-use to prevent serving customers bad tasting, oil soaked, or dangerously undercooked food.

OPERATOR'S GUIDE

The quick test gel itself is made of food materials and is safe to use, but be careful when handling hot oil.

VERI-FRY® QUICK TEST Instructions



- 1) Take a sample of the oil from the fryer in a clean cup or ladle.
- 2) Uncap the VERI-FRY® tube. Use the dropper to fill tube until the curve of the hot oil level is on the line.
- 3) Screw the cap securely back onto tube and shake to mix the hot oil with the blue testing gel. If needed, place tube in cup of hot water to melt the gel so it mixes *completely when shaken* with the hot oil.
- 4) Hold the VERI-FRY® Color Card in one hand and the tube in the other. Hold the tube next to the colored squares to get the best visual estimate of the condition of the oil. The liquid in the tube must be hot and clear.

CONDITION OF THE FRYING OIL

A Color Card reading of 1 indicates a fresh oil. A reading greater than 1 (slightly green tinge) shows a minimum of oil breakdown products. A reading between 2 and up to 3 (green) represents still good oil. A reading of 4 (dark green) represents an oil that is at the point of discard. A reading of 5 (deep olive green) or greater indicates the oil is beyond the accepted discard point.

ADVANTAGES OF THE VERI-FRY® QUICK TEST

The test is a better guide to oil management because it measures the breakdown products of both the oil and the food together. The test measures the condition of the oil correctly, even though different foods cause different oil degradation rates during frying. The test demonstrates the benefits of passive filtration removal of fine particles, and of active filtration removal of oil breakdown products. Frying oils reading less than 5 on the Color Card generally contain less than 25% Total Polar Materials, and less than 15% polymer. The test gives optimal control of taste, texture, and quality of fried foods.

When kept cool and dark, the color of reacted tests in tightly capped tubes will be stable about 1 year. This permits collection of the tubes for re-examination, or for off-site quality assurance programs. To re-examine the tests simply remelt, shake thoroughly, and compare to the Color Card.

NOTICE: These testing results are based on reference to samples provided by the store/restaurant/chain and to other known oils within our research center. Test Kit Technologies, Inc. has no control over the oils tested by individual stores or restaurants and can assume no responsibility for inaccurate readings due to adulteration of the oil or due to unknown components or treatments present in the oil. The actual discard point must be confirmed at each location to conform with local rules and conditions.