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frottino Standard ST-4, information and instructions for use

With every use, frying fat loses quality, it spoils. This rate of degradation depends on the temperature of the frying bath and on what has been fried.

The condition of cooking oil is measured based on the percentage exposure to polar parts. frottino ST-4, held in the oil of the deep fryer, measures the degree of polar parts. The condition of the cooking oil is indicated by various colored LEDs (device with digital display: frottino alpha-2)

The level of spoilage of fatty substances cannot be assessed without measuring devices. A limit value of 27% applies to the hospitality industry in Switzerland, 24% in some other countries. frottino ST-4 takes the needs of food inspectors into account.

Instructions for use:

Getting ready:

The frottino probe must be clean (see p. 2, cleaning). Should there be oil residues in the probe area, the measurement may deviate by a few percent.

The frying oil can have a temperature of 20 to 180 degrees. For security reasons, however, we recommend to measure only up to max. 60 degrees Celsius. Too high or low temperature of the device or the presence of water in the probe is indicated by the flashing yellow LED.

The device must be switched on by briefly pressing the top button before immersing it in the oil. The 3 indicator LEDs light up briefly, then one LED after the other. This confirms that the device is ready to measure. Should only the yellow LED flash, is this an alarm report: in this case, please see " measurement errors".

Measurement:

Switch off the fryer heating, then hold the frottino in the oil you want to check.

- If the oil or fat has not been used for a long time - stir before measuring
- Switch off the heating of the deep fryer, no food in the deep fryer during the measurement
- The 4 ventilation holes must be completely covered
- The measuring stick must be held in the oil at an angle of approx. 45 degrees so that any air bubbles can escape
- Hold the stick still, do not stir in the oil during the measurement
- Hold the device in the frying oil until the result is displayed
- Rinse with warm soap solution after the last day's use

Edible fat that is used for deep-frying can also be tested for polar components. The fat must be liquid and stirred before the measurement.

The LEDs go out and measurement starts. The result is displayed after approx. 5 seconds, the last measurement is being saved.

Display and limits:

green (stable shining)	bis 18 %	very good
yellow " "	18 – 24%	good
red " "	24 - 27 %	just within the limit
flashing red	> 27 %	do not use this oil anymore
flashing yellow	measurement error!	see below

Incorrect measurements are indicated by flashing yellow. Possible reasons:
- Water in the frying bath
- Water in the sensor area
- Air bubbles in the measuring tube
- Too much salt in the frying oil
- If the oil is cold: air bubbles in the measuring tube
- The device has been pulled out of the oil during measurement
- Result outside the measuring range of the polar parts (approx. 0 to 45%)
- Frying oil too cold or too hot (below 15 °C or above 200 °C)

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Should you have doubt about the results of the measurement: measure fresh oil – the LED must shine green.
If not, please contact Syntec's customer service: info@syntec.ch. Calibration by the customer is not possible.

Battery change:

The device works with a 1.5V type AAA battery.
Use only leak-proof alkaline or lithium batteries.
Do not use rechargeable batteries.

- Unscrew the cap on the back and pull it out
- Replace the battery (pay attention to the polarity)
- Put on the screw plug and the bracket, then tighten

Cleaning:

Not dishwasher-safe.
The device must be rinsed with warm soap solution after the last measurement of the day.
After cleaning, hang up the device to dry.

Don't poke into the sensor tube. Do not use any brush, scouring pad, wooden or metal sticks.

Technical specifications:

All accessible materials are safe in terms of food technology.

Battery:	1x1.5 V type AAA alkaline or lithium, please do not use rechargeable batteries
Lifespan:	approx. 200 measurements
Display:	LED color code
Accuracy:	resolution 0.4% polar parts
Temperature:	Temperature in degrees Celsius for both frottino ST-4 and this paper

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