



Mi490 - Photometer

PEROXIDE VALUE in the process of oil making



Mi490 is a user-friendly photometer for monitoring peroxide value in the process of oil making. This instrument will give you direct readings, with a range of 0.0 to 25.0 meq O₂/Kg .

The measurement of the oil's chemical degradation is the peroxide value, which measures the degree to which the oil is oxidized. Rancidification is the decomposition of fats and other lipids by hydrolysis and/or oxidation. Hydrolysis will split fatty acid chains away from the glycerol backbone in glycerides. These free fatty acids can then undergo further auto-oxidation. Oxidation primarily occurs with unsaturated fats by a free radical-mediated process.

One of the most widely used tests for oxidative rancidity, peroxide value is a measure of the concentration of peroxides and hydroperoxides formed in the initial stages of lipid oxidation. Milliequivalents of peroxide per kg of fat are measured by titration with iodide ion.

Peroxide values are not static and care must be taken in handling and testing samples. It is difficult to provide a specific guideline relating peroxide value to rancidity. High peroxide values are a definite indication of a rancid fat, but moderate values may be the result of depletion of peroxides after reaching high concentrations.

Easy Steps

Prepare the sample with oil and the reagent then insert it in the instrument and note the reading.

Accurate Readings

Mi490 will give you direct readings, with a range of 0.0 to 25.0 meq O₂/Kg in the process of oil making.



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Accessories

Mi590-021	Peroxides reagent set (21 tests)
Mi0001	10 mL glass large cuvetts (2 pcs)
Mi0002	Caps for large cuvetts (2 pcs)
Mi0004	Tissue for wiping cuvetts (4 pcs)
Mi0006	Battery 1.5V AA (4 pcs)

Ordering Information

Mi490 is supplied complete with: reagents for 20 tests, 4 x 1 mL syringe, tissue for wiping cuvetts, 4 x 1.5V AA batteries and instruction manual.

