



Colour Measurement of Oils and Fats According to the AOCS-Tintometer Colour Scale

Lovibond Tintometer AF 710-3



The Lovibond Tintometer AF 710-3 is a visual instrument approved by the American Oil Chemists Society (AOCS) for colour grading of oils and fats according to AOCS Official Method Cc 13b-45, the Wesson Method. Colour is determined by comparing light transmitted through a column of oil with that transmitted through a series of red and yellow glasses calibrated in accordance with the AOCS-Tintometer Colour Scale. The glasses are varied until a colour match is found for the light passing through the oil and this colour is then expressed in units of red and yellow.

The Tintometer AF 710-3 accommodates the special flat-bottomed glass sample tubes specified in the AOCS Official Method Cc 13b-45, which are marked to indicate an oil column of 1/2", 1" and 5 1/4". The tube holder, which prevents light from entering the sides of the tubes, houses two tubes, one containing the sample and the other allowing an equal amount of light to reach the colour glasses. The field of view comprises two circular fields which do not overlap, as required by the AOCS Method.

The Lovibond Tintometer AF 710-3 is supplied complete with a set of AOCS-Tintometer colour glasses, two glass sample tubes and a calibrated coloured glass filter for regular conformance testing.

AOCS-Tintometer Colour Scale

The AOCS-Tintometer Colour Scale is a special red and yellow version of the Lovibond RYBN scale using the AOCS-Tintometer Red Scale (which is not the same as the Lovibond standard red scale). The AF710 - 3 includes the following standard set of glasses:



Red	0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9 1.0, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0 7.6, 8.0, 9.0, 10.0, 11.0, 12.0, 16.0, 20.0
Yellow	1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0 10.0, 15.0, 20.0, 35.0, 50.0, 70.0

Technical Specification

Measuring principle	Visual, in terms of AOCS-Tintometer Color units
Mode	Transmittance
Range	0.1 - 20 Red, 0.1 - 70 Yellow
Resolution	0.1 AOCS-Tintometer Red units, 1.0 AOCS-Tintometer Yellow units
Optical system	5 glass-filled nylon racks containing a graduated range of AOCS-Tintometer Color standards
Viewing system	Fully adjustable, prismatic with integral blue filter for light standardisation
Light source	2 x 12 Volt, 20 Watt tungsten halogen lamp
Illuminant	Approximates to daylight
Path length	1/2", 1" and 5 1/4"
Power pack	12 Volt ac, autoranging supply
Approvals	CE
Instrument housing	Fabricated sheet steel with a tough, textured paint finish
Dimensions	Width 330 mm, depth 100 mm, height 480 mm
Weight	8.3 kg

Accessories

Conformance filter set for AF710 - 3 (0.5R 1.0Y, 3.7R 13.0Y, 6.6R 38.0Y) (Order Code 10 97 20)
 Pair of glass sample tubes to AOCS requirements (Order Code 35 17 10)
 Tungsten halogen lamp 12V 20 W (Order Code 12 23 40)
 Drip tray (Order Code 11 41 99)
 Porcelain white reference (Order Code 11 56 00)