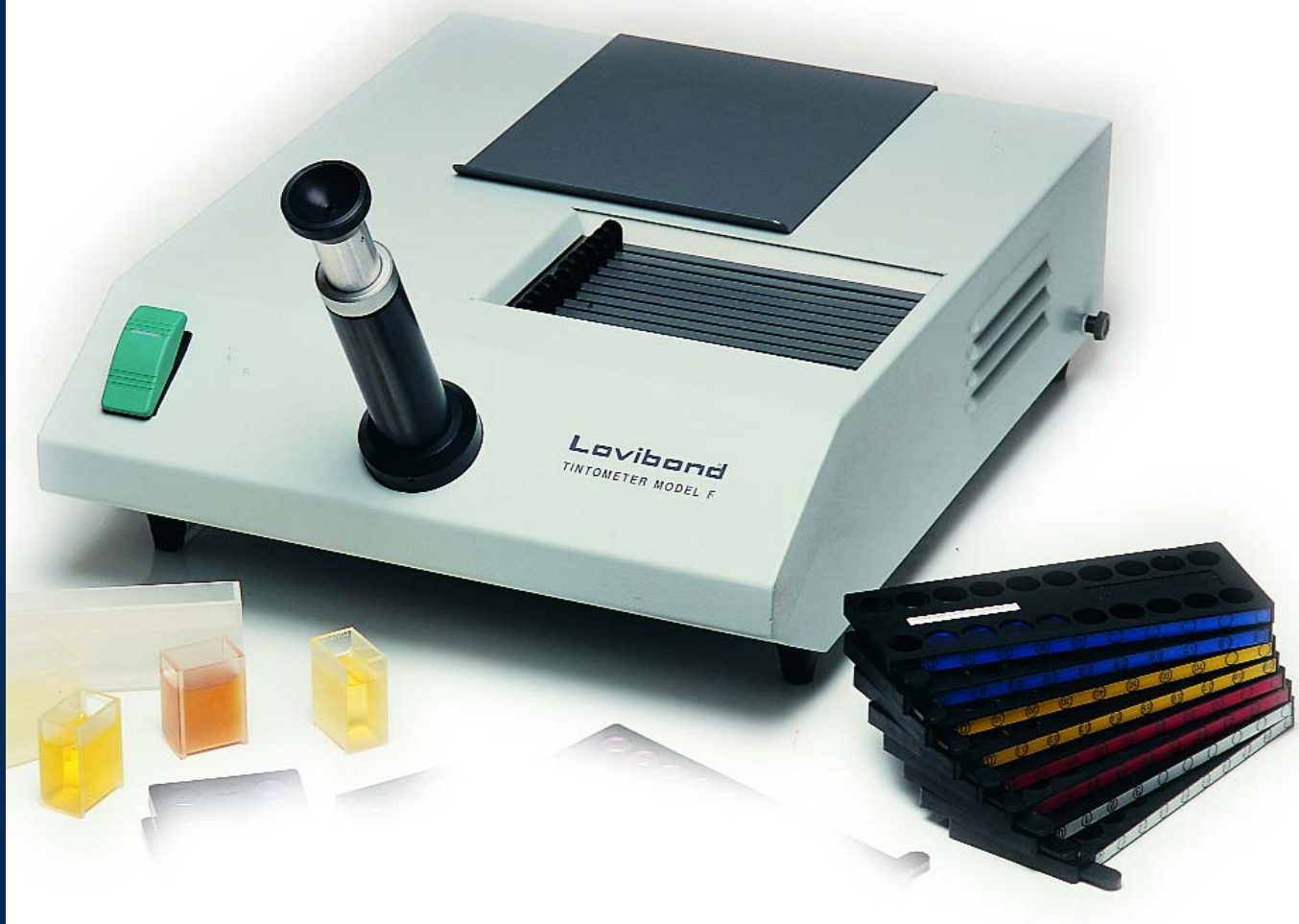
Lovibond® Colour Instruments

A major advance in visual colorimetry

Lovibond® Colour Scale

Lovibond® Tintometer Model F

- *Glass colour standards housed in durable racks*
- *External, low-voltage regulated power supply*
- *Prismatic optical system provides improved colour matching*
- *Balanced field of view*
- *Diffused tungsten-halogen light source*
- *Replaceable sample chamber liner*



Lovibond® Tintometer Model F

Operating Principle

The Lovibond® Tintometer is a visual colorimeter designed to optimise the use of Lovibond® glass filters. It is arranged with two adjacent fields of view, seen through the viewing tube, so that the product in the sample field and a white reflective surface in the comparison field are observed side by side, suitably illuminated. The Lovibond® glasses are introduced into the comparison field by a simple system of sliding racks, allowing the user to compare the colour of light which is either transmitted through or reflected from the sample with that transmitted through the glasses. A series of neutral glasses in racks is also supplied; these can be introduced into the sample field to dull the colour of products which are too bright to obtain a good colour match using Lovibond® Red, Yellow or Blue glasses. The racks are varied until a visual colour match is found for the light from the sample and its colour can then be expressed in Lovibond® units.

Lovibond® Tintometer circa 1930

Easy Maintenance for Optimum Performance

The Lovibond® Tintometer is a precision optical instrument which should be kept clean to preserve its accuracy, even in the harsh operating conditions often encountered. This is why the Model F has been designed to allow easy cleaning and maintenance with the minimum of cost and effort. The instrument includes a white plastic liner in the sample chamber which can be removed for cleaning if a spillage takes place. It can be replaced at intervals to maintain the whiteness of the interior, an essential feature for accurate colour matching. Separate filters in the racks also simplify cleaning and allow replacement of single glasses (as opposed to complete racks) if required. The Model F is an easy to use instrument with versatile application in colour measurement of products which transmit light as well as opaque solids, powders and pastes (an optional 'solid' sample accessory pack may be required for colour grading of light-reflecting products). It is available in slightly varying formats to meet the requirements of different applications and the national and international standardising bodies which specify the instrument in their official methods for colour measurement:

Order No.	Lovibond® Tintometer	Description
18 00 00	Model F	Standard model for applications including fats and fatty oils, bleached lac, liquid chemicals and pharmaceuticals.
18 02 70	Model F (BS 684)	Version for measuring animal and vegetable fats and oils according to BS 684 Section 1.14, ISO 15305 and AOCS Method Cc 13e-92. Racks are fitted with colourless glass compensating slides in the sample field. The instrument also includes a black sheath to prevent light entering the sides of the sample cell.

Each format of the Model F is supplied with a complete set of 11 racks containing permanently coloured glass filters for the Lovibond® colour scale (Red 0.1 - 0.9, 1.0 - 9.0, 10.0 - 70; Yellow 0.1 - 0.9, 1.0 - 9.0, 10.0 - 70; Blue 0.1 - 0.9, 1.0 - 9.0, 10.0 - 40; Neutral 0.1 - 0.9, 1.0 - 3.0), a sample chamber liner with a white PVC reference, a spare white reference, a pair of spare bulbs, rectangular fused glass cells (one each of 1" and 5 1/4") for the Model F and one each of 1/16", 1/8", 1/4", 1/2", 1", 5 1/4" for the Model F (BS 684)), a colour analysis record sheet and instructions.

TECHNICAL SPECIFICATION

Measuring principle	Visual, in terms of Lovibond® units
Modes	Transmittance, reflectance
Range	0.1 - 79.9 Red, Yellow; 0.1 - 49.9 Blue; 0.1 - 3.9 Neutral
Resolution	0.1 Lovibond® unit
Optical system	11 glass-filled nylon racks containing a graduated range of Lovibond® colour glasses
Viewing system	Fully adjustable, prismatic with integral blue filter for light standardisation
Light source	2 x 12 Volt, 10 Watt tungsten halogen lamp
Illuminant	Approximates to daylight
Path length	Up to 153 mm (6")
Power pack	12 Volt ac, switchable to suit 220/110 Volt supply
Approvals	CE
Instrument housing	Fabricated sheet steel with a tough, textured paint finish
Dimensions	Width 330 mm, depth 410 mm,
height	230mm
Weight	8.3 kg

Standard Accessories for use with the Lovibond® Tintometer Model F

- A range of optical glass cells up to 6" path length.
- Conformance filters and certified colour reference solutions representing a range of Lovibond® colours, for quick and simple quality control checks on instruments and operators.
- Replacement sample chamber liners available as single units (Order No. 18 10 39) or in a pack of three (Order No. 18 01 10).
- An optional 'solid' sample accessory pack for measuring light-reflecting products in terms of Lovibond® units (Order No. 18 01 00).

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