

**Brightness
Measuring
Instrument
TINT TESTER
527**



testing equipment for quality management

ERICHSEN

Technical Description

**ASTM D 3265
ASTM D 2745**

**Tinting Strength
Determination**

Purpose and application

The **TINT TESTER 527**, has been developed especially for brightness measurement of dark, uncured coatings such as paste pigment applications on flat surfaces, to determine the tinting strength according to ASTM D 3265 and ASTM D 2745. Besides this special application, the instrument can also be used as a standard reflection photometer to measure the brightness of solid substrates (coatings, paper, plastics, etc.) according to ASTM E 97.

Design and function

The **TINT TESTER 527** consists of a stationary, mains driven power supply and display unit (with digital display for a range from 0-199.99) and the portable **TINT SENSOR Y** degree of resolution.

TINT SENSOR Y:

The **TINT Sensor** incorporates the 45°/0° worldwide standardized measuring geometry with light source C illumination. The spectral response of the light sensing photocell is corrected with an especially selected Y-filter so that the measuring values correspond with the brightness sensitivity of the CIE-2°-standard observer.

An adjusted and optimized lens system is part of the light transmitting and sensing optics to guarantee homogenous illumination of the specimen surface as well as a defined reception of the remitted light. Because of this, the results of measurement are highly reproducible, free of drift and according to specifications.

The opto-electronic system of the measuring head is insensitive against external disturbances due to the integrated pre-amplifier. It is possible to set the amplification within a wide range so that the measuring range of the instrument can be adjusted to the actual measuring problem to get optimum results.

Two transverse support ledges 8 mm wide and at a pitch of 80 mm integrated with the undersides of the measuring head, keep the measuring head away from the specimen so that measurements on coatings in the form of pastes are possible: the ledges prevent damage to the specimen and contamination of the measuring head. The gap between the measuring head and the specimen is 0.5 mm. It is thus possible to measure tint strength of freshly applied coatings with a wet film thickness of approx. 400 µm whilst extraneous light is totally excluded.

Technical Data

Power Supply and Display Unit

Dimensions (L x W x H):	275 x 235 x 110 mm
Net weight:	3.7 kg
Power Supply:	230 V ~, 50 Hz (other voltages upon request)
Capacity:	45 VA
Display:	4½ digit LED display (range 0 - 199.99 units)

TINT SENSOR Y

Dimensions (L x W x H):	175 x 55 x 95 mm
Net weight:	840 g
Measuring aperture:	Ø 23 mm
Light Source:	6 V - halogen lamp with special filter for light type C
Light Sensor:	Si photocell with special filter for matching the spectral curve of brightness sensitivity (Y value) of CIE-2°-standard observer

Ordering information

Order No.	Product Name
0146.01.31	Brightness Measuring Instrument TINT TESTER 527
Scope of delivery includes: <ul style="list-style-type: none">◆ Supply unit with LED display◆ TINT sensor Y measuring head with 45/0° geometry, Y filter and 1.5 m connecting cable to the display unit.◆ Black standard for zero setting◆ Spare light bulb, spare fuses, mains connecting cable, screw driver and operating instructions	

Accessories

Order No.	Product Name
0318.01.32	BCD output
0323.01.32	RS232-C interface
0324.01.32	Analogue output (0 - 10 V)
0325.01.32	Analogue output (0 - 20 mA)
0140.01.14	White standard

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