

## Drying Time Tester Model 415



testing equipment for quality management

**ERICHSEN**

Technical Description and Instructions

ISO 9117

For measuring the  
degree of dryness  
of coatings

## Purpose and Application

The **Drying Time Tester, Model 415**, is intended for the determination of the degree of dryness of coatings in accordance with ISO 9117 (modified Bandow-Wolff method).

## Design and Function

The **Drying Time Tester, Model 415**, consists of an light alloy cylinder which is fixed to a stand. The pressure spring integrated in the cylinder facilitates a plunger force of up to 250 N which is applied to the coating in a perpendicular motion by way of a lever mechanism.

The clearance between the plunger and the base table can be set to the thickness of the test panel by adjusting the lever bracket accordingly.

Loading weights (20 g and 200 g) with a diameter of 24 mm are included in the scope of delivery for standardized loads of less than 2 kg (20 N).

To achieve a uniform distribution of the contact pressure a cylindrical soft rubber disk with a diameter of 22 mm, a thickness of  $(5 \pm 0.5)$  mm and a hardness of  $(50 \pm 5)$  IRHD in accordance with DIN ISO 48, is used.

## Conducting the Test

The test sequences vary in accordance with the dryness degree as follows:

### Dryness degree 1

The coating is covered with ballotini which are subsequently removed using a fine brush.

### Dryness degrees 2 and 3

First a paper disk is placed onto the coating, then a soft rubber disk. Loads of 20 g and 200 g are applied by adding one of the individual weights provided (load duration 60 s).

### Dryness degrees 4 to 7

The test panel is placed on the stand base with the coating upward and successively covered with a paper disk and a soft rubber disk. The required load (2 kg or 20 kg) corresponding to a plunger force of 20 N or 200 N, is produced using lever pressure and maintained for approx. 60 s.

## Evaluation of Test

After removing the load, the coating is evaluated in accordance with the following table.

Dryness degree	Criteria in accordance with ISO 9117
1	Ballotini scattered over the surface can be easily and completely removed with a fine hair brush.
2	The paper does not adhere subsequent to loading with 20 g.
3	The paper does not adhere subsequent to loading with 200 g.
4	The paper does not adhere subsequent to loading with 2 kg, there are however visible signs of change on the coated surface.
5	The paper does not adhere subsequent to loading with 2 kg, and there are no visible signs of change on the coated surface.
6	The paper does not adhere subsequent to loading with 20 kg, there are however visible signs of change on the coated surface.
7	The paper does not adhere subsequent to loading with 20 kg, and there are no visible signs of change on the coated surface.

## Technical Data

Dimensions:	Width: approx. 150 mm
	Depth: approx. 300 mm
	Height: approx. 440 mm
Net weight:	approx. 4.5 kg

Order Information	
Order No.	Description of Product
00930131	Drying Time Tester, Model 415
<i>Included in scope of delivery:</i>	
<ul style="list-style-type: none"><li>♦ Stand</li><li>♦ Individual weight for load of 20 g</li><li>♦ Individual weight for load of 200 g</li><li>♦ 2 soft rubber disks of 22 mm Ø</li><li>♦ 100 paper disks of 26 mm Ø</li><li>♦ Ballotini dispenser</li><li>♦ 50 g glass beads ("ballotini"), Ø 125 - 250 µm, in compliance with ISO 9117</li></ul>	

Subject to technical modification.  
Group 9 - TBE/BAE 415 - XI/2017