Drying Time Tester Model 415

testing equipment for quality management

ERICHSEN

Technical Description and Instructions

DIN 53 150
DIN EN ISO 1517

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 DIN 53 150 (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 ± 0.5) mm and a hardness of (50 ± 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 DIN 53 150
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**
0093.01.31	**Drying Time Tester, Model 415**

Included in scope of delivery:

- Stand
- Individual weight for load of 20 g
- Individual weight for load of 200 g
- 2 soft rubber disks of 22 mm ∅
- 100 paper disks of 26 mm ∅
- Ballotini dispenser
- 50 g glass beads ("ballotini"), ∅ 125 - 250 µm, in compliance with DIN EN ISO 1517

Subject to technical modification.
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