Visco Test Blade
Model 301

testing equipment for quality management

ERICHSEN

Technical Description and Operating Instructions

acc. to Rossmann

Simple consistency test

Visco Test Blade acc. to Rossmann, Model 301

Purpose and Application

There is a basic procedure for assessing the application consistency of paints and coatings, namely to stir the liquid with a spatula and measure the run-off time subsequent to removing the spatula from the liquid. With this method, however, surface tension factors make it difficult to determine the end of run-off time. By using the **Visco Test Blade**, **Model 301**, the influence of the surface tension is comparatively low and the end of run-off can be accurately defined.

The **Visco Test Blade** is designed for the rapid determination of the viscosity of paints for spray and brush application. On the one hand it is a practical stirring utensil when adding thinner to the paint and, on the other hand, it serves as a device to measure the viscosity of the substance. It is easy to use and to clean, making it a convenient instrument for use in the practice.

Test Principle

The **Visco Test Blade** acc. to Rossmann is made of non-corrosive spring steel sheet and features two precisely dimensioned slits, both of which have a round hole at each end. The testing device is the equivalent of a capillary viscometer projected onto a plane surface, with the slits replacing the capillaries and the holes replacing the spheres. The different widths of the two slits are equivalent to capillaries of varying diameters. The flow rate in the slit is dependent on the width of the slit and on the viscosity and density of the liquid. The approximate correlation between the run-off time using Model 301 and the run-off time with the DIN flow cup with a 4 mm nozzle is as follows: The run-off time using the DIN flow cup is about 5 times greater than the run-off time in the narrow slit of the **Visco Test Blade**, or 12 times greater than the run-off time in the wider slit.

Performance and Evaluation of Test

The **Visco Test Blade** is immersed into the test liquid in such a way that the slit is entirely covered, whilst the upper hole remains free. The blade is then lifted quickly out of the liquid, holding it upright, and the time measured until the fluid meniscus in the slit reaches the lower hole. This point is clearly visible since the membrane covering the hole will burst at that moment. The run-off speed in the slit is also influenced by the run-off speed on the remainder of the blade. The immersion depth should therefore be adhered to exactly. As an additional precondition for achieving accurate measuring results, the blade should also be properly wetted prior to the test.

The run-off time for paints containing volatile solvents should not exceed 10 seconds, thus keeping measuring errors caused by solvent evaporation to a minimum. The slit widths are dimensioned for a run-off time of 5 s. The narrow slit is intended for testing spraying viscosities and the wider slit for brush-on consistencies. The slits are marked accordingly.

Technical Data

Dimensions:	Length 180 mm Width 20 mm Height 0.5 mm
Net weight:	approx. 0.015 kg

Order Information	
Order No.	**Product Description**
0021.02.31	**Visco Test Blade acc. to Rossmann, Model 301**, in plastic carry-case

Subject to technical modifications.
Group 2 - TBE - XII/98

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