

## **Interfacial Tension Between Oil and Water**

Weshine® Surface Tensiometer for measuring Interfacial Tension Between Oil and Water with CE certificate, high quality and accuracy, Invented and produced according to national standards, complete electric testing solution available. Contact us for more details of Winding Resistance Test of Transformer from Weshine!



## Surface Tensiometer for measuring Interfacial Tension Between Oil and Water

Surface tension is a measure of the coherence that exists at an interface. Liquid molecules attract each other. The interactions of molecules in a liquid object are balanced by equal attractive forces in all directions. Molecules at the surface of the liquid experience an imbalance and become more tightly attached to the molecules to which they are directly attached. This creates a "film" surface that makes it harder for the body to traverse the surface than if it were completely submerged. The same applies to the interface of two immiscible liquids such as oil and water. In this case, the term "interface voltage" is used. Surface tension and surface tension have several different units and are usually measured at the Dain/cm (mN/m) level.

Weshine® offers a range of Surface Tensiometer (VS-9804 series) for measuring **surface tension of oil in water** widely used for educational, research, process control and quality control purposes to measure surface tension.

## Weshine® Surface Tensiometer for measuring Interfacial Tension Between Oil and Water Parameter (Specification)

PRODUCT INFORMATION			
Product Name	Interfacial Tension Between Oil and Water		
Test Range	0 to 200 mN/m	Accuracy	1%
Resolution	0.1 mN/m	Repeatability	0.3%
Test Method	Du Noüy ring method		
	* Wilhelmy plate method		
Power	20 W	Power Supply	AC220 V
Standards	GB/T6541	Certificates	CE; EMC; LVD; ISO; IEC;
Dimensions	210mm*300mm*370mm	Model Number	VS-9804

The testing method of Weshine® Surface Tensiometer for measuring **Interfacial Tension Between Oil and Water** is:

### Du Noüy ring

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The Du Noüy ring method uses a platinum ring as a probe. The platinum ring is placed on the measuring hook attached to the high-sensitivity balance. Immerse the ring below the interface by moving the platform on which the liquid container is placed. After immersion, the height of the platform is lowered, the ring is pulled across the interface, and the liquid meniscus is pulled with it. If the container is lowered further, the meniscus will come off the ring. Before this event, the volume of the meniscus (and thus the force applied) passes through a maximum and begins to decline until it actually breaks. The calculation of the surface or interfacial tension is based on the measurement of the maximum force and the circumference of the ring.

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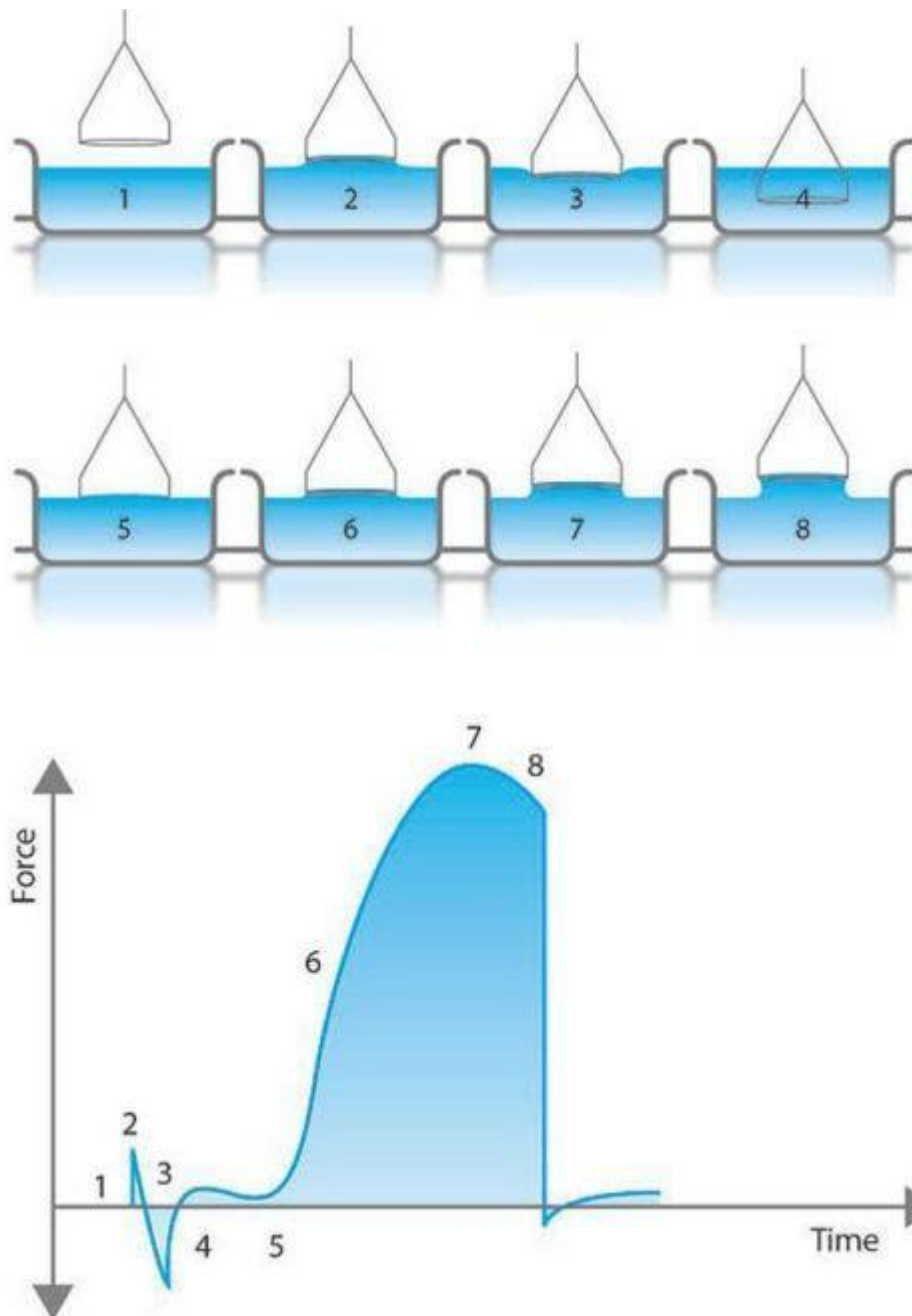


Figure 1. The different phases of the experiment can be determined from the force versus time curves:

- 1) At the beginning, the ring is above the interface and the force is zero.
- 2) At the contact interface of the ring, there is a slight normal force due to the adhesion between the ring and the surface.
- 3) The ring must be pushed across the interface (there is a small negative force due to surface tension).
- 4) The ring breaks through the interface, and a small normal force is measured due to the support line of the ring.
- 5) The measured force begins to increase as it is lifted through the interface.
- 6) The force keeps increasing.
- 7) Maximum force is reached.
- 8) After reaching the

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maximum, the force decreases slightly until the sheet breaks, or pushes the ring back below the surface.

## Selections

Weshine has 8 years of experience specifically for deal with complete range of Electrical Equipment. At present, Weshine has invented various Surface Tensiometer for measuring **Interfacial Tension Between Oil and Water** as shown as form:

ORDERING INFORMATION FOR SURFACE TENSIO METER FOR MEASURING Interfacial Tension Between Oil and Water						
Cat. No.	Test Range (mN/m)	Accuracy	Du Nouÿ ring	Wilhelmy plate	Dimensions (mm)	Weight (kg)
VS-9804A	2 to 200	0.1% rdg	√		185 x 260 x 360	6
VS-9804B	0 to 200	0.1% rdg	√		200 x 300 x 330	6
VS-9804C	0 to 1000	0.1 mN/m	√	√	200 x 330 x 420	8
VS-9804D	0 to 1000	0.01 mN/m	√	√	200 x 330 x 420	8
VS-9804E	0 to 1000	0.001 mN/m	√	√	200 x 330 x 420	8

Based on Supply Chain issues: Please contact your preferred Authorized Weshine Distributor for current pricing and lead times.

## Quality Certificates

We always believe that all the success of our company is directly related to the quality of the products we provide. Surface Tensiometer for measuring **Interfacial Tension Between Oil and Water** meet the highest quality requirements specified in ISO9001, ISO14000:14001 guidelines and our strict quality control system.



## Shipment



For further information on Weshine's Service Solutions, contact our 24/7 online sales representative to get quotes from Weshine.

## Contact us

<b>FEEL FREE TO MAKE A PHONE CALL:400 996 1868</b>	<b>OR E-MAIL TO: <a href="mailto:info@weishengelectric.com">info@weishengelectric.com</a></b>
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