

# Dynamic contact angle measurement, Powder wettability analysis

## DyneMaster DY-700/500



**Surface Tensiometer DY-700**



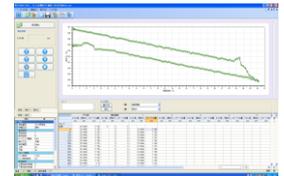
The DY-700 and DY-500 feature the same body design

Both the DY-700 and the DY-500 are fully-automatic, high-precision and easy-to-use surface tensiometers for reliable measurements of dynamic contact angle and powder contact angle, in addition to surface and interfacial tension, lamella length, liquid and solid density, sedimentation behavior and evaporation rate.

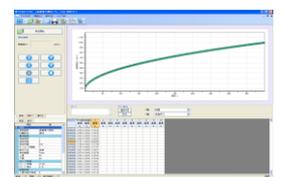
High-quality components and the durable design combined with a video user manual integrated into the software guarantee user-friendly operation.



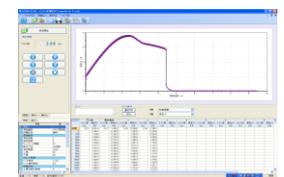
**Dynamic Contact Angle Measurement**



**Powder Contact Angle Measurement**



**Lamella Length Measurement**



### FEATURES

- ◆ "One-click" fully automated operation
- ◆ Jacket-type sample stage with built-in stirrer function
- ◆ Built-in temperature sensor
- ◆ Video user manual for user friendly operation

### MEASURING METHODS

- ◆ Surface and interfacial tension using plate and ring methods
- ◆ Dynamic contact angle of solids using the plate method
- ◆ Powder contact angle using the Washburn method
- ◆ Lamella length using the ring method
- ◆ Liquid and solid density
- ◆ Sedimentation behavior
- ◆ Evaporation rate

### TYPICAL APPLICATIONS

- ◆ **Dynamic contact angle:** Wetting and adhesion properties of coatings
- ◆ **Powder contact angle:** Wetting properties of powders, inks and paints
- ◆ **Lamella length:** Paint levelling, foaming stability of coatings and fire extinguishing agents

### SPECIFICATIONS

	DY-700	DY-500
Measuring methods	Surface and interfacial tension, Lamella length, Liquid and solid density, Sedimentation behavior, Dynamic contact angle, Powder contact angle & wetting speed, Evaporation rate	
Measuring range	0 to 1000 mN/m	
Accuracy <sup>1)</sup>	0.02 mN/m	0.2 mN/m
Resolution	0.01 mN/m	
Calibration method	By built-in calibration system	By external calibration weight
Stage speed and stroke	0.002 to 50 mm/s, 50 mm	
Measuring probes	Platinum (Wilhelmy) plate, Platinum (Du Noüy) ring	
Optional measuring kits	Dynamic contact angle, Powder contact angle, Liquid & Solid density, Sedimentation behavior, Evaporation rate	
Measuring temperature	Jacket type: +5 to +90 °C, Heater type: Ambient to +150 °C <sup>2)</sup>	
Instrument dimensions (WxDxH)	295 x 415 x 425 mm	295 x 415 x 425 mm
Instrument weight	23 kg	20 kg
Power supply	AC 100 to 240 V, 50/60 Hz	
Operating environment	Temperature: +10 to +35 °C, humidity: 30 to 80 %RH (non-condensing) Positioned away from sources of electrical noise and vibration	

<sup>1)</sup> Accuracy is the repeatability in terms of standard deviation based on manufacturer's standard.

<sup>2)</sup> Optional

For detailed information, please contact our sales partner or us directly at +81-48-483-2629 or at [overseas-sales@face-kyowa.co.jp](mailto:overseas-sales@face-kyowa.co.jp).

Specifications and designs are subject to change without notice.

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