



# KU-3

## Krebs Viscometer

## Instructions

### A. Purpose

KU-3 Krebs Viscometer was designed to measure paint and other coating viscosity indicated with KU values. And it can show the test sample's viscosity in KU value or CP value or g value. This machine was adopted and controlled by micro-computer. The dispersing disc rotating at a constant speed of 200r/min, when the dispersing disc rotating in the test sample, the resistance force of the disc convert into KU value by micro-computer, the operator can read the KU value, CP value and g values directly from the display. Our machine was designed in accordance with ASTM D562 and GB/T 9269.

### B. Main technical parameters

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|----------------------------|---|
| (1) Measuring range:       | 40.2KU~141.0 KU<br>32g~1099g<br>27cP~5250cP |
| (2) Measuring accuracy:    | $\pm 1.5\%$ FSR                             |
| (3) Repeatability:         | $\pm 1.5\%$ FSR                             |
| (4) Agitating shaft speed: | 200r/min $\pm$ 1r/min                       |
| (5) Capacity of vessel:    | around 500ml                                |
| (6) Input power:           | 220V 50Hz                                   |
| (7) Power:                 | 10w   |
| (8) Overall size:          | 180mm*210mm*470mm (L*W*H)                   |
| (9) Shipping weight:       | 9kg   |
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## C. Test environment

- (1) This instrument should be located on firm and level smooth table far from strong airflow, magnetic field, electric pulse and electric field.
- (2) In order to keep security of the operator, the socket of power should be put on the ground reliably.
- (3) Temperature of laboratory should be  $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and relative moisture  $\leq 75^{\circ}\text{C}$ .
- (4) Temp. of sample:  $23^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$

## D. Operation and Application:

- (1) Take the instrument out of packing case and lay it on the table.
- (2) Take the agitating disc and insert it into the sleeve of shaft according to overall drawing and fix it by screw.

Notice: screw should stand up against the flat mouth of agitating disc.

- (3) Insert the plug of power then turn on the switch back in the machine, the system start to self examine, after examine the machine goes in awaiting state ,display shows KU value, CP value and g value, the figure on the display is “0”
  - (4) Put the test sample into the vessel. The level of liquid is 10mm depth from the mouth.
  - (5) Put the vessel with sample on the vessel seat, choose the measuring unit (KU means the KU value of sample to be measured, “gm” means the load value). Press the lift handle down and immerse the agitating disc into the sample, the mark on the disc shafts should be level with liquid. The machine will start operation automatically.
  - (6) After few seconds the display will indicate the viscosity value of the test sample. Now you can read KU,CP, g value(the sample must be agitated for several seconds to reach dynamic balance, that you can get the accurate data).
  - (7) After measurement just lifting up the handle to the limit unit at the highest position, so the meter can be kept at this position .The machine stops rotation and come to the awaiting state again.
  - (8) This machine installed with inside intelligent display procedure, so the reader keep stable for each measuring that convenient by operator to read (You must repeat the process o if you need different measurement unit).
  - (9) This machine installed a Hold switch outside, for recording, press down the hold switch, the figure will be kept and can choose different units for recording. To keep the switch off (towards up) if measuring again.
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## E. Notice

- (1) There are precision measuring components inside the case of this instrument, which should be handled with care during transportation.
- (2) This instrument is a specialized instrument. If the specialized personnel do not disassemble the instrument casing on their own, it may affect the measurement accuracy of the instrument.
- (3) When the instrument is temporarily not in use, the lifting handle of the instrument should be kept on the high limit device, rather than in a lower position, otherwise it may cause inflexibility in lifting.
- (4) Regular inspections should be conducted at the company once a year or sent to relevant metrology supervision departments for testing.

## F. Packing list

NO.	Category	Quantity
1	Host	1
2	Blade	1
3	Stainless steel cup	1
4	Data cord	1
5	Software CD	1
6	Cup cushion disk	2
7	Power cord	1
8	Manual	1
9	Certificate	1