

LLOYDS Research Foundation. Inc

LLOYDS Digital Chrono Thermo Viscometer Model 92 N

For developing and manufacturing high quality Printing ink and Varnish.



Model 92N

Instrument used to measure accurate Viscosity and Yield Value of ink, Varnishes & other viscous materials in the development of ink formulation and in manufacturing of high quality printing ink by Falling Bar Principle. (LARRY Method)

Standards: ASTM D4040
Range: 40 - 2500 poises

LLOYDS Falling Bar Digital Chrono Thermo Viscometer Model 92N

For Testing Printing Ink, Varnish & other Viscous Material

Featuring advanced microprocessor based electronic with infrared control. Lloyds Viscometer provides the highest accuracy and efficiency for research and development, quality control and process evaluation. A most important instrument used in the manufacturing of high quality printing inks and varnishes to control viscosity and yield values at various stages of production, and accurate quality control of production batches without any chances of rejection or reworking.

Viscosity and yield value of a given printing ink are important properties and must be controlled in a fair limits, if consistent and reproducible printing results are to be achieved.

Advance Features

- Confirms to ASTM D4040
- Microprocessor based electronics for high reliability and accuracy
- Simple and fast method of test and easy to operate
- Only 2 cc of test sample required
- Steel Viscobar and glass Viscobar (for low viscosity i.e. liquid ink, etc)
- Failsafe auto manual electronic design with auto zero for minimum testing time
- Nil or Minimum maintenance needed
- Best for regular production and for developing accurate formulations and R & D work

LLOYDS Viscosoft Software

Lloyds Viscometer is further backed by specially designed **Lloyds Viscosoft software** that will directly calculate **without the need of manually plotting Larry Viscosity Graph** the accurate viscosity, yield value and shortness ratio or S.R.index of an ink with test certificate for achieving perfect formulation. A very important tool for quality control and R & D laboratory

Advance Features of the LLOYDS Viscosoft Software

- Accurate, Instant and repeatable test results of viscosity, yield value and shortness ratio of an ink with test certificate without manually plotting the Larry Graph
- Can recalculate Viscosity, yield value and shortness ratio at any other given temperature without the need to perform the test at that temperature
- Advance inbuilt features to measure viscosity under temperature variations with correction factor
- Online comparisons of test results or with set standards
- Calibration through software require only dimension of orifice and viscobar. No special standard tested fluid or representative ink required to calibrate the viscometer. Simple Calibration technique in software to maintain instrument consistency and takes care of viscometer wear and tear

Database for formulation and manufacturing process details for further references

You may download free demo version of the Lloyds Viscosoft Software from our website
<http://www.lloydsresearch.com/>

Accessories

- Glass viscobar for low viscosity measurement with calibrated weights for low viscosity i.e. liquid ink, resins etc.
- Viscosoft software for calculating viscosity, yield value and shortness ratio without plotting the graph manually
- Refrigerated water bath for maintaining accurate test temperature of viscometer

Electrical characteristics

- 230/110 Volts 50/60 Hz
- Less than 10 Watts power consumption

Dimension & Weight Details

- Unit physical dimension -12"W X 6"D X 15"H - Net Weight 23 Kgs
- Shipping Dimension - 21"W X 12"D X 19"H - Gross Weight 40 Kgs

Lloyds Viscosoft Software

General Information of Test

The screenshot shows the 'Main Screen' window of the Lloyds Viscosoft software. It features a menu bar with 'File', 'Setting', and 'Help'. Below the menu bar are three tabs: 'General', 'Reading', and 'Notes'. The 'General' tab is active and contains the following fields:

Batch No.	01	Humidity	48
Date of Test	11/25/01	Save File Name	01_01
Test Run No.	01	Test Temperature	30 °C
Color	Yellow	Type of Rod	<input checked="" type="radio"/> Steel Rod <input type="radio"/> Glass Rod
Tested by	SF		
Certified by	SM		

At the bottom of the window, there are six buttons: 'New', 'Load', 'Save', 'Print', 'Close', and 'Help'.

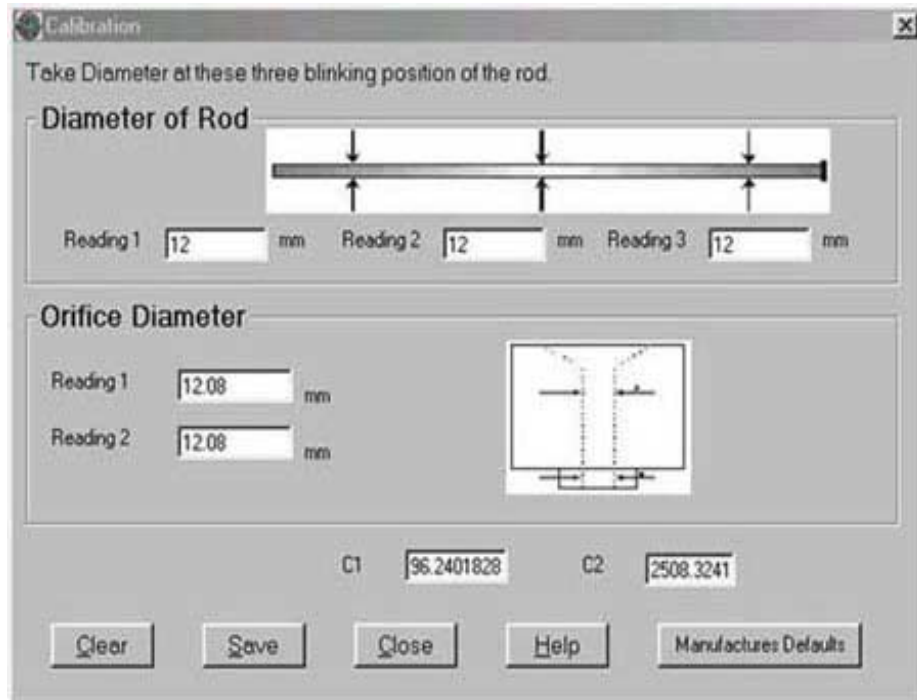
Selection of Weights for the Test

The screenshot shows the 'Test Sequence' window, which is used for selecting weights for the test. It contains a grid of checkboxes for various weight values:

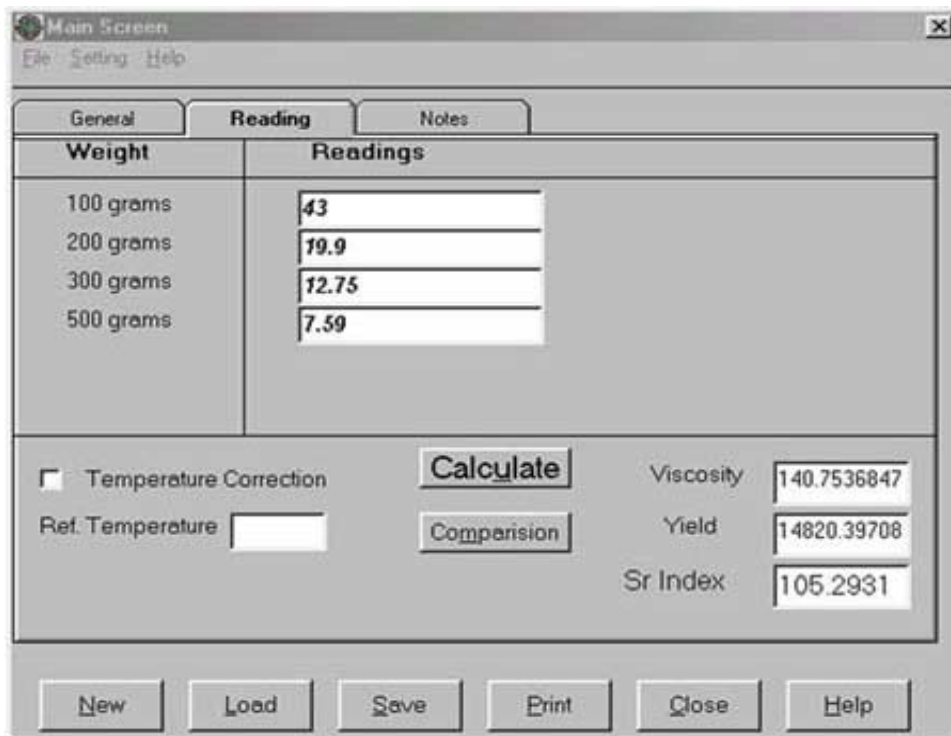
<input type="checkbox"/> 0 grams	<input type="checkbox"/> 250 grams	<input type="checkbox"/> 700 grams	<input type="checkbox"/> 1400 grams
<input type="checkbox"/> 25 grams	<input checked="" type="checkbox"/> 300 grams	<input type="checkbox"/> 800 grams	<input type="checkbox"/> 1500 grams
<input type="checkbox"/> 50 grams	<input type="checkbox"/> 350 grams	<input type="checkbox"/> 900 grams	<input type="checkbox"/> 1600 grams
<input type="checkbox"/> 75 grams	<input type="checkbox"/> 400 grams	<input type="checkbox"/> 1000 grams	<input type="checkbox"/> 1700 grams
<input checked="" type="checkbox"/> 100 grams	<input type="checkbox"/> 450 grams	<input type="checkbox"/> 1100 grams	<input type="checkbox"/> 1800 grams
<input type="checkbox"/> 150 grams	<input checked="" type="checkbox"/> 500 grams	<input type="checkbox"/> 1200 grams	<input type="checkbox"/> 1900 grams
<input checked="" type="checkbox"/> 200 grams	<input type="checkbox"/> 600 grams	<input type="checkbox"/> 1300 grams	<input type="checkbox"/> 2000 grams

At the bottom of the window, there are five buttons: 'Save', 'Clear', 'Close', 'Help', and 'Make Standards'.

Initial Calibration of Viscometer in Software by feeding diameter of Visco bar and Visco orifice on Actual measurement with the use of accurate micrometer and Vernier Caliper



Tabulate actual test reading obtain from the Viscometer and press 'Calculate', Lloyds Viscosoft software will directly Calculate and display accurate results for Viscosity in poises, Yield value in dynes/cm² and Shortness ratio of ink under.



TEST CERTIFICATE



LLOYDS RESEARCH FOUNDATION, INC.
2/502, Sea Crest, 7 Bungalows,
Versova, Mumbai, India.
Tel: 0091-022-634 3255 / 634 0666
Fax: 0091-022-634 0666 / 634 0187
E-mail: sales@lloydsresearch.com
Website: www.lloydsresearch.com

Accurate Viscosity & Yield value results without plotting graphs, by Lloyds Viscosoft® software

Product Detail

<i>Batch NO.</i>	01	<i>Date of Testing</i>	10/25/01
<i>Product Code.</i>		<i>Certificate NO.</i>	
<i>Test Run NO.</i>	01	<i>Tack (Inkoscope)</i>	
<i>Color</i>	YELLOW	<i>Flow</i>	
<i>Quantity of Production</i>		<i>Tested by</i>	SF
		<i>Certified by</i>	SM

Test Detail

<i>Weight (Gms)</i>	<i>Actual Readings (Sec)</i>	<i>Bar Used:</i>	Steel
100 grams	43	<i>Test Temperature:</i>	30 degree Celsius.
200 grams	19.9	<i>Humidity:</i>	48
300 grams	12.75	<i>Viscosity in poises:</i>	140.753684743581
500 grams	7.59	<i>Yield Value in Dynes/cm2:</i>	14820.3970818682
		<i>Sr Index</i>	105.29313750377
		<i>Remarks:</i>	

Observations / Notes on formulation

Viscosoft Software Developed By Lloyds Research Foundation, Inc. Bombay (India)
Tel: +91-22-634 3255 / 634 0666 Fax: +91-22-634 0666 / 634 0187
Website: www.lloydsresearch.com E-mail: sales@lloydsresearch.com

Designed, Manufactured & Marketed by -
LLOYDS RESEARCH FOUNDATION, INC.

Regd.off : 2/502, Sea Crest, Seven Bungalows, Versova, Bombay - 400 061, INDIA
Tel: 0091-22-634 3255 / 634 0666 Fax: 0091-22-634 0666 / 634 0187

E-mail: sales@lloydsresearch.com Website: www.lloydsresearch.com