# Mooney Viscometer

#### **Mooney Viscometer 2202**

#### **Features**

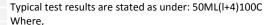
Mooney Viscometer is a shearing disk Viscometer, designed for accurate measurement of viscosity, scorch time and cure rates of the elastomers.

The instrument consists of flat, cylindrical disk, driven by a motor to rotate slowly and continuously in one direction. This disk is embedded into elastomer specimen which is confined in a heated die cavity maintained at specified temperature and kept closed by a specified force. As the disk rotates its experiences a shear strain. This resistance to rotation offered by the elastomer is shearing viscosity which is proportional to mean absolute viscosity of the specimen.

Normally a preheat period is given to the elastomer following which the disk starts to rotate. An initial high viscosity is recorded and then as the viscosity also decreases, to a minimum value Viscosity obtained with large rotor are approximately twice those of small rotor.

The viscosity is reported as under:

- 1. Method of sample preparation
- 2. Mooney viscosity number
- 3. Rotor size
- 4. Preheat time
- 5. Time interval to viscosity reading
- 6. Temperature of test



- 50M = Viscosity in mooney units
- L = Large rotor (for small replace it with 'S')
- I =Preheat time in minutes
- 4 = Time in minutes after starting the motor at which the reading is taken
- 100C = Test temperature

#### **Features of Software and Hardware**

- 1. Cromtech India will provide a unit on the Mooney Viscometer which will interface between computer and Mooney Viscometer
- 2. Delete Option (Stock, Batch No.)
- 3. Provision Quality Gates (pass/fail criteria)
- 4. Statistical Analysis (Sigma, Range, Mean, Standard Deviation)
- 5. Output data Reports VI, VM, ML(1+4), ML(1+8), T5, T35, T30, Stop Time, End Temp and Status, Cp, Cpk, Values (Bar Graph)
- 6. User Friendly Software Windows based
- 7. Temperature Graph will appear along with Mooney Graph
- 8. Huge Capacity of Data Storage and Retrieval
- 9. Color Printout
- 10. Flexible Testing timings
- 11. On line display of Mooney vs Time graph





# LABORATORY EQUIPMENTS

# **Mooney Viscometer**

#### **General Specifications:**

Feature	Value
Mooney Measuring Range:	0 to 200 MU.
Pre-Heat Time:	0 to 10 minutes
Mooney measurements:	Choice of 3 readings
Standards:	According to ASTM D1646, ISO269
Rotor Size:	Large and Small
Rotor Speed:	2.0+0.02 r.p.m.
Drive Motor:	Synchronous geared motor.
Temperature:	PT-100 Microprocessor Controlled.
Calibrated Range:	50°C to 200°C Independent Upper and Lower Platen Control.
Temperature Control:	Accuracy ±0.5°C
Torque Transducer:	Reaction Torque Sensor. Four Arm temperature compensated semi-conductor strain gauge bridge
Recording & Display:	Computer controlled testing. At the end of the test, the computer calculates the results automatically and displays it
Printed Data:	Colour Inkjet Printer
Main Power Supply:	AC 175V ~ 275V, 50 Hz, 20A max.
Compressed Air Supply:	60 psi (4.2 Kg/sq.cm) minimum operating pressure (Air compressor is to be user's own requirement)

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