



## Mooney Viscometer



## STANDARDS

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ASTM D1646

ISO 289-1

ISO 289-2

A Mooney Viscometer measures changes in rubber and elastomer properties as they progress from an uncured state to the onset of scorch. The specimen is deformed by a rotating platen, allowing the system to capture changes in Mooney viscosity at preset temperatures. Once the test is complete, the dies automatically reset for easy specimen removal.

The unit uses a PID temperature controller to maintain stable test conditions and accurate data capture. Servo-driven motors deliver precise torque measurement, operate quietly, and require minimal maintenance.

This mooney viscometer machine is built for efficient operation and easy upkeep. It includes modular electrical boards, quick-release upper and lower dies, computer-based calibration, and automatic hardware detection. A transparent arc shield enhances operator safety. Designed for dependable performance, this viscometer for rubber provides reliable results at an affordable cost.

## APPLICATIONS

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The Mooney Viscometer is widely used across rubber and elastomer processing industries for evaluating:

- Raw rubber quality and consistency
- Polymer viscosity stability during storage
- Compound scorch characteristics
- Processing behavior of natural and synthetic rubber
- Quality control for rubber mixing and formulation

- Material comparison during R&D and product development
- Routine laboratory testing aligned with ASTM D1646 testing

These capabilities make it an essential viscometer for rubber in both research and production environments.



## THEORY & METHOD

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### Mooney Viscometer MVR-3000AU Overview:

Mooney Viscometer model MVR-3000AU is an upgraded model of the traditional Mooney viscometer. Using a new microprocessor and LCD touch screen with built-in automatic balance and calibration device, it can automatically calibrate by pressing the button.

With an accurate specimen temperature control system and high torque measuring precision, this machine is highly sensitive to changes in rubber materials and has optimum repeatability and reproducibility.

## TECHNICAL SPECIFICATIONS

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Mooney Viscometer Specifications	
Test mode	Mooney viscosity, Mooney scorch, stress relaxation
Temp. control	PID control
Temp. range	Ambient temp. $\pm$ 200°C
Temp. display resolution	0.1°C
Temp. control stability	$\pm$ 0.1°C
Temp. accuracy	$\leq$ ±0.5°C
Temp. recovery time	$\leq$ 45 sec
Heating time	Ambient temp. $\pm$ 100°C < 6 min
Mooney range	250 MU

Torque display resolution	0.001 MU
Rotor speed	2.00 rpm
Rotor speed accuracy	±0.01 rpm
Controller	U70 Control system
Calibration system	Automatic balancing and calibration
Software	Evolution
Communication interface	RJ45
Motor	Stepper motor
Compressed air	3.5kg/c <sup>3</sup> (0.35MPa)(prepared by customer <sup>3</sup> )
Dimension (W×D×H)	70 cm × 85 cm × 130 cm
Power	1φ AC 220V 50/60Hz 2kW <sup>3</sup> or specify <sup>3</sup>



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