



**No Rotor Rheometer  
TNRR-A10**



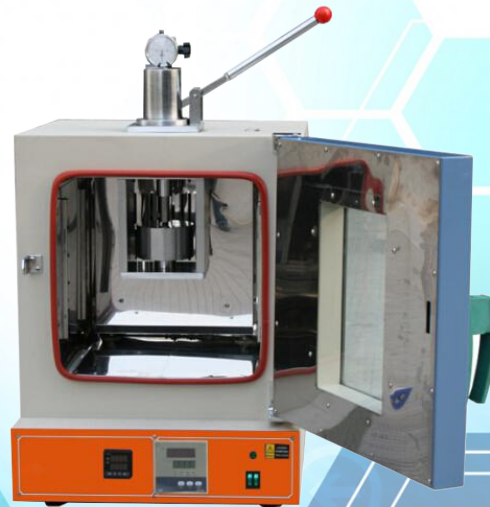
**Rubber Low Temperature  
Brittleness Tester  
TRBT-A10**



**DIN Abrasive  
Tester TDAT-A10**



**Mooney Viscometer  
TMV-A10**



**Rubber-Weiss plasticity  
Testing Machine  
TRWM-A10**

DIN abrasion tester TDAT-A10 determines abrasion resistance of rubber made products, natural rubber, vulcanized rubber, thermoplastic amorphous polymers to withstand the long term damage as a result of friction due to its excessive use. The ratio between standard loss of rubber material & test rubber material, expressed in percentage, marks the abrasion resistance index of sample under test.

### Features

---

- Automatic electric lock for the rotating cylinder
- Mechanical unlocking of the cylinder for easy abrasive replacement
- Screw for adjustment of abrasion specimen
- Enables control uniformity of specific material
- Machine with metallic base plate, polished paint & zinc coating
- High quality machine design with reproducible results
- Easy to operate

### Applications

---

DIN abrasion tester is used to determine the abrasion resistance of elastomers by the frictional loss of the rubber in products such as tires, conveyor belts, hoses, footwear, floor covering, thermoplastic amorphous polymers etc.

## Specifications

Model no.	TDAT-A10
Test arm weight	2.5 N
Additional Loads	2.5 ± 0.1 N, 5 ± 0.1 N, 10 ± 0.1 N,
Idler	150 mm
Abrasion stroke	40 ± 0.2 M
Horizontal displacement	4.2 mm/ rotation
Stroke	20 m/ 40 m presetting
Grips lateral displacement	4.2 ± 0.04 mm/ rotation
Idler wheel speed	40 ± 1 rpm
Measurement mode	Auto/ manual presetting
Specimen size	Diameter 16 mm, thickness at least 6 mm
Emery cloth specifications	60 # seam is less than 2 mm
Shift screw	6 teeth/ inch
Limit rotation	85 rotate
Set rotation	84 rotation of 40 meters
Return form	Electric automatic reset
Net Weight	75 kg
Dimension	950×660×310 mm
Power supply	220 V, 50 / 60Hz

Mooney viscometer TMV-A10 is designed to measure the change in elastomers properties, viscosity, scorch time & cure rates of rubber & plastic. With strong data function, Mooney viscometer supports storage, drawing and output of multiple curves under the same interface. The resistance to rotation from the elastomer is, its shearing viscosity is proportional to mean absolute viscosity of the specimen.

### Features

---

- PID microprocessor controlled technology
- Servo-driven motor for up to 0.5 % accuracy
- Store and modify the past test reports
- Measures the strength of rubber from characteristic curve and data
- Tests standard curve setting, statics, deviation setting, CPK calculations etc.
- Supports data interface query in multiple forms
- Multiple analysis functions

### Applications

---

The Mooney viscometer is used in rubber & plastic industry for quality & research testing of elastomers, polymers.

## Specifications

Model no.	TMV-A10
Control temperature range	Normal temperature to 200 °C
Temperature display resolution	0.01 °C
Temperature control accuracy	± 0.3°
Calibration accuracy	Mooney value ± 0.5
Rotor speed	2 rpm
Speed accuracy	± 0.02 rpm
Torque range	Mooney value 0 to 200
Torque resolution	Mooney value 0.1
Printer connection	Yes
Content printed	Data, time, temperature, mooney scorch curve & MV, T5 T35 T3 T18 @15 @30
Power supply	AC 220 V, 50 Hz, ± 10 %

TNRR-A10 is a No rotor rheometer where rubber sample is enclosed in mold cavity, maintained at test temperature. The mold cavity comes in two parts, where lower part (swing oscillations) determines strain as the reaction torque of the mold cavity (force). The PID controlled microprocessor technology controls and detects change in temperature. LCD screen display the real vulcanization curve and temperature curve, adjust the test data, store test results.

### Features

---

- PID controlled microprocessor technology
- LCD Display
- Use of highly imported precision sensors
- Statistics, analysis, storage and comparison functions
- Can print automatic processing, calculations results
- Non curing viscometer monolithic rotor controlled
- User-friendly design appearance, easy to operate
- Supplied with data acquisition system
- Finds the vulcanization time for gelatin

### Applications

---

No rotor rheometer is used to test vulcanization characteristics of rubber material across rubber industry for quality & research.

## Specifications

Model no.	TNRR-A10
Temperature tester	Room temperature to 200 °C
Temperature accuracy	$\leq \pm 0.3$ °C
Temperature resolution	0.1 °C
Torque range	0 to 5 NM, 0 to 10 NM, 0 to 20 NM
Torque resolution	0.001 NM
Motor rotating speed	100 times/ min
Rotor range	Adopt 4 setting 25, 50, 100, 200 lbs per inch
Die cavity frequency	1.7 Hz
Sway angle	$\pm 0.5^\circ, \pm 1^\circ, \pm 3^\circ$
Air compression	0.5 MPa to 0.65 MPa
Ambient temperature	0 to 35 °C
Test result	Printed date, time, temperature, vulcanization curve, temperature curve ML, MH, ts1, ts2, t10, t50, Vc1, Vc2
Display	Windows 7 + software
Dimension	1310×560×620 mm
Weight	250 kg
Power	Single phase, 220 V $\pm$ 10%, 50 Hz

Rubber low temperature brittleness tester TRBT-A10 measures the highest temperature when vulcanized rubber is damaged due to an impact from test conditions, this temperature is called as brittle temperature. It identifies the difference between non-rigid plastic, flexible materials under low temperature. It also measures the brittle & low temperature performance quality of different types of vulcanized rubber materials.

### Features

- Analogue display to observe temperature value
- -60 °C to 0 °C low temperature range
- Indications for highest temperature/brittleness test temperature
- Tests vulcanized rubber & other vulcanized material

### Applications

Rubber low temperature brittleness tester has applications in scientific research testing, quality analysis, inspection units to measure highest temperature of vulcanized rubber & other materials.

### Specifications

Model no.	TRBT-A10
Temperature range	-60 °C to 0 °C
Temperature accuracy	± 0.5 °C
Impact speed	2 m/s ± 0.2 m/s
Temperature fluctuation	<± 0.5 °C
Distance between center of impact or bottom of gripper	11 ± 0.5 mm
Outer dimension	720×700×1380 mm
Cold well volume	700 ml
Power	1100 W
Net weight	180 kg



Rubber-Weiss plasticity testing machine TRWM-A10 the pressurized heavy hammer slides moves in up and down axial direction to measure the deformation occurred due to heavy pressure hammer displacement. 3 minutes after completion of the test, clock stops automatically, bringing hammer back to normal position. The dial indicator fixed on the top bracket of TRWM-A10 measures the sample deformation caused by heavy pressure hammer displacement.

### Features

---

- Pressurized heavy hammer lifting mechanism control, wrench pressing
- Thermostat for controlling temperature parameters
- Auto-timer alarm function
- Digital temperature display
- Automatic zero reading value for start of each operation
- Integrated circuit, compact structure
- Low power consumption

### Applications

---

Rubber-Weiss plasticity testing machine finds applications in rubber & rubber like material industry.

### Specifications

Model no.	TRWM-A10
Temperature range	RT 50 <sup>o</sup> to 300 <sup>o</sup>
Temperature accuracy	± 1 <sup>o</sup>
Measuring range	0.01 to 25 mm
Accuracy	± 0.01 mm
Load	49 N ± 0.05 N
Counter	LCD display
Dimension (W*D*H)	350×350×350 mm
Weight	53 kg
Power supply	AC 220 V, 5A