

Tackiness Checker

Model HTC-1

Patent-Pending

Application

In the molding process of tires, belts, etc. where components including rubber materials and reinforcement materials are bonded in multi layers and vulcanized, it is very important to check component tackiness before forming process. This machine is developed to allow on-site check of tackiness of rubber components; it might also be applicable to tackiness check of adhesive tapes.



<Measurement unit>

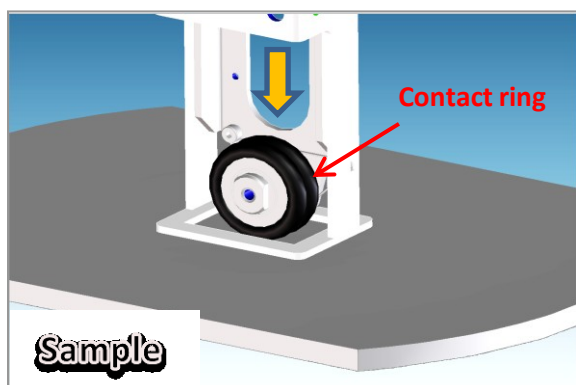
Features

- Compact and light-weight. High portability with only 1.3 kg.
- On-site measurement of tackiness available.
- Simple measurement by only pressing the instrument onto sample (Automatic start)
- Ratchet mechanism turns the contact ring after each measurement
- Easy cleaning of contact ring with cleaning mode
- Surface temperature of sample is optionally measurable which affects tackiness (Optional)

Measurement Principle

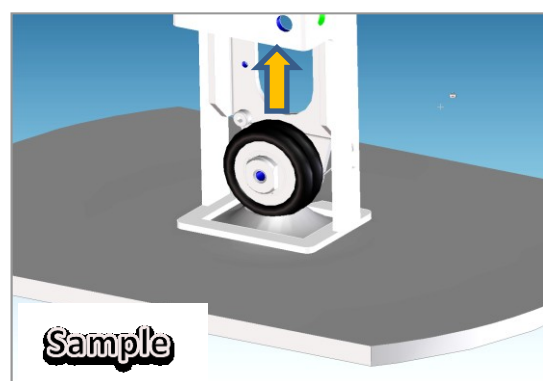
【 Press 】

Press O-ring down onto sample.



【 Pull up 】

Pull O-ring up from sample. Load cell measures adhesion (tackiness).



Specifications

Standard	Contents
Measure tackiness	Load cell (50N, resolution 0.1N)
Press force	5N~12N(variable)
Press time	3 sec/6 sec (selection)
Test N number	1 / 3/ 5 (selection)
O-ring move speed	Approx. 2.3 mm/sec
Contact ring	SBR rubber O-ring(model RB-S1), Aluminum curvature surface ring (model AL-R1)
Time/test	Approx. 7 sec (when press time is 3 sec)
Contact ring drive	Brushless DC motor
Contact ring rotation	Auto rotation function
Minimum sample size	50 x 50 mm
Display	LCD 16 characters 2 lines
Test condition(input)	-Sample name (4 digits) - Result display (median or average if multiple) -N number (1, 3, 5) - Press time(3 sec or 6 sec)
Calendar function	Date, Time (yyyy/mm/dd hh:mm) Auto refresh until 2099
Battery	Lithium ion battery 7.4V 2000mA (Ref) About 1500 tests when fully-charged
Power consumption	Standby: 550mW Motor Drive: 800mW
Dimension & Weight	118(W) X 222(H) X 72(D) mm 1.3kg
Standard attachments	- Battery charger, AC adapter DC 8.4V 500mA...1pc - SBR rubber O-ring 10 pcs, - Aluminum curvature surface ring 1pc, Bar for detach O-ring 1pc
Option	
Measure temp module of sample surface (model ST-1)	- Measure sample surface temp. --- (Remark 1) - Thermopile radiated temp sensor (Built-in) - Temp range 5 - 40 deg C, Resolution 1 deg C
Carry case (model KS-1)	Put main instrument and attachments away
Aluminum flat surface ring(model AL-F1)	Contact area is larger than Aluminum curvature surface ring to get larger tackiness value

(Remark1) Temperature is subject to fluctuate due to object emissivity ratio
This product measurement data is based on emissive ratio of rubber ($\epsilon \approx 0.95$)
Sample with emissive ratio largely different might have problem measuring surface temperature.