



YASUDA
— TESTING THE LIMITS —

Summary of Special Abrasion Tester! 【YASUDA-SEIKI】 For the test of Akron Rubber · NBS Rubber · DIN · Williams

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No.150 LAMBOURN ABRASION TESTER



JIS-K6264-2、 ISO-4649

This tester is used to evaluate the abrading resistance of vulcanized rubber and thermoplastic rubber. The operator is to abrade the test sample with the abrading wheel, which rotates independently at a different speed. Using the rotating speed difference of the test sample and the abrading wheel and the test load applied at the abrading surface, the operator is to measure the abraded mass of the test specimen. This tester is usually used on test specimens that are applied for tires, belts and shoe soles.

No.150 Specification

Specimen	Disk Shape, ϕ 49 mm, T5 mm
Specimen Rotation Speed	10 to 200 m/min
Abrasion Wheel	ϕ 175 mm, T25 mm, Material: C, Grit #80, Coupling K
Wheel Rotation Speed	10 to 200 m/min
Slip Angle	0°
Slip Ratio	0 to 50 %
Compression Device	Loading Load: 5 to 80 N, Additional Method: Servomotor, Detection: Load Cell (Feedback Method)
Test Axis Torque	Max. 5 N·m
Temperature Range	Max. 150 °C (Option: Refrigerator -35 to 150 °C)
Grit Supply Device	Carborundum #80, Container 2 L, Drop Amount: 10 to 30 g/min
Software	Windows Compatible

Power Source	AC 200 V, 3-Phase, 50 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W1,250 × D1,260 × H1,670 mm/ 250 kg

No.151 DIN ABRASION TESTER



JIS-K6264-2、 ISO-4649、 DIN-53 516

This tester is to evaluate the abrasion resistance of vulcanized rubber and thermoplastic rubber. By pressing the test specimen at a certain test load against the rotating drum that has an abrasive cloth on the abrading surface, the operator is to acquire the abrading mass of the test specimen. Test specimens include tires and belts.

No.151-H DIN ABRASION TESTER (WITH CONSTANT TEMPERATURE CHAMBER)



JIS-K6264-2、 ISO-4649、 DIN-53 516

This tester can assemble a chamber in order to conduct the test at high temperature such as 100 degree.

No.151/No.151-H Specification

Model	No.151 DIN ABRASION TESTER	No.151-H DIN ABRASION TESTER
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		(WITH CONSTANT TEMPERATURE CHAMBER)
Test Method	Method A and B	Method A and B
Specimen	Disc shape, $\phi 16.0 \pm 0.2$ mm, T6 to 10 mm	Disc shape, $\phi 16.0 \pm 0.2$ mm, T6 to 10 mm
Rotating Drum	$\phi 150$ mm, L460 mm	$\phi 150$ mm, L450 mm
Drum Rotation Speed	40 ± 1 rpm	10 to 100 rpm (Standard: 40 ± 1 rpm)
Feed Speed	2.8 mm/s	1.5 to 15 mm/s (Standard: 2.8 mm/s)
Weight Load	10.0 ± 0.2 N or 5.0 ± 0.1 N	10.0 ± 0.2 N or 5.0 ± 0.1 N
Abrasive Cloth	W400 mm or More, Material: Alumina, Grit P60	W400 mm or More, Material: Alumina, Grit P60
Temperature Range	—	Max. 100 °C
Accessories	Suction Device (Vacuum Cleaner), Specimen Setting Gauge, Standard Specimen: 1 sheet, Metal	Suction Device (Vacuum Cleaner), Specimen Setting Gauge, Standard Specimen: 1 sheet, Metal

	Specimen: 2 pcs, Specimen Cutter	Specimen: 2 pcs, Specimen Cutter
Power Source	AC 100 V, 1-Phase, 10 A, 50/60 Hz	AC 200 V, 3-Phase, 20 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W750 × D320 × H280 mm/ 60 kg	W1,130 × D920 × H745 mm/ 255 kg

*We also provide low temp. testing compatible Types.

No.271 NBS RUBBER ABRASION TESTER



ASTM-D1630

This tester is to evaluate the abrasion resistance of vulcanized rubber and thermo-plastic rubber. By pressing the test specimen at a constant load to the abrasive-coated paper which is wrapped to the rotating drum, the operator is to acquire the abrasion resistance by the number of rotations the drum made.

No.271 Specification

Hangings	3 Hangings
Specimen	25 × 25 × T6.35 mm
Rotating Drum	φ150 mm
Drum Rotation Speed	45 ± 5 rpm
Abrasive Paper	W250 mm, Material: G, Grit #40
Counter	6 Digits Preset Counter
Dial Gauge	Scale 1/100 mm, Stroke Max. 10 mm
Weight	2,265 gf: 3pcs

Air Nozzle	3 pcs, Air Pressure 241 ± 35 kPa
Accessory	Fixing Band: 4 pcs
Power Source	AC 100 V, 1-Phase, 10 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W765 × D510 × H500 mm/ 145 kg

No.275 WILLIAMS ABRASION TESTER



JIS-K6264-2、ISO-4649

This tester is to evaluate the abrasion resistance of vulcanized rubber and thermo-plastic rubber. The operator is to determine the volume loss due to the abrasive action of rubbing two flat and non rotating test specimens to an

abrading wheel. This tester is usually used on test specimens that are applied for tires and shoe soles.

No.275 Specification

Specimen	(20 ± 0.5) × (20 ± 0.5) × T10 mm
Specimen Position	Left-Right 63.5 mm from center of wheel
Weight Load	35.5 N (3.62 kgf)
Abrasion Wheel	Outer Diameter φ165 mm, Inner Diameter φ70 mm, Material C, Grit #70
Wheel Rotation Speed	37 ± 3 rpm
Air Nozzle	Vent φ1.0 mm (Pitch 6 mm): Upper & Lower 3 pcs each, Air Pressure 180 kPa
Pressure Gauge	Max. 1 MPa (Scale 0.1 MPa)
Timer	Max. 99 min 59 sec
Accessory	Specimen Cutter

Power Source	AC 100 V, 1-Phase, 10 A, 50/60 Hz
Air Source	0.5 MPa or More
Dimensions/ Weight (Approx.)	W700 × D520 × H560 mm/ 55 kg

No.152 AKRON RUBBER ABRASION TESTER



JIS-K6264-2、ISO-4649

This tester is to evaluate the abrasion resistance of vulcanized rubber and thermoplastic rubber. By pressing the rotating circular test specimen at a certain test load to the circumference surface of the abrading wheel, the

operator is to acquire the abrading mass of the test specimen. The test specimen will usually be tires and shoe soles.

No.152 Specification

Specimen	$\phi 63.5 \pm 0.5$ mm, T 12.7 ± 0.5 mm, $\phi 12.7 \pm 0.1$ mm
Specimen Rotation speed	250 \pm 5 rpm
Inclination Angle	0 to 30° (Normal: 15°)
Test Load	10.0 \pm 0.2 N or 5.0 \pm 0.1 N
Option	Suction Device (Vacuum Cleaner)
Power source	AC 220 V, 1-phase, 10 A, 50/60 Hz
Dimensions/ Weight (Approx.)	W750 \times D320 \times H280 mm/ 60 kg