



## Unidale Martindale Abrasion & Pilling Tester

Unidale Martindale & Abrasion Pilling Tester is stable and reliable, and it is a smart testing instrument, which can be operated and monitored remotely from the smartphone through IoT technology. It greatly improves working efficiency. At the same time, Unidale has a variety of running trajectories and stations and speed options to meet ISO 12945-2-2020, ISO12947-2-2016, GB/T 21196.1-2007, GB/T 4802.2-2008, BS EN530-2010, ASTM D4970/4970M-22, ASTM D4966-22 and other test standards.

The butterfly-shaped guide plate is space-saving and lighter, convenient to observe the test status; With a precision appearance design, and an aluminum alloy hard oxidation surface, this Martindale abrasion & pilling tester is durable. It can be used to determine the abrasion and pilling resistance of cotton, linen, silk woven fabrics, and other textiles, as well as membrane materials, knitted fabrics, woolen fabrics, artificial leather, synthetic leather, gloves, labor protection materials, and so on.

# Unidale

## Martindale Abrasion & Pilling Tester



### Smart instrument

It can be connected through Wi-Fi with SmarTexLab App installed on the smartphones, then you can set parameters, monitor the test status, and receive equipment warning and replenishment reminders, etc., and share the test with one click, improving the work efficiency.

### Stable running, reliable test results

The fixture rotates flexibly and the grinding table and specimen fixture is highly parallel. The machine and the surface of the grinding table have a very low vibration (less than 0.05mm), so those are more conducive to achieving reliable test results.

### 3 kinds of running trajectories, 3 kinds of test stations, and 3 kinds of speeds, to meet a variety of requirements.

It is equipped with 3 kinds of trajectories, one is straight line trajectory, the other two are Lissajous curve, 24mmx24mm (pilling test), 60.5mmx60.5mm (abrasion test), and you have a wide selection of test stations: 9, 6, 4 stations, and 3 speeds, slow (24rpm), standard(47.5rpm), and fast (75rpm), which can be adapted to a wide range of test methods and standards.

### Light design, easy to use

Unique butterfly-shaped guide plate, lightweight and space-saving, so it is easy for you to change accessories and observe the test status.

In addition, the machine is durable with precise design and aluminum alloy hard oxidation surface; the trapezoidal chassis is more stable, seven-inch color touch screen is easy to use.

### The Specification of Unidale

Abrasion test	
Max stroke of movement	60.5+/-0.5mm
Weight of holder and spindle	198+/-2g
Pilling test	
Max stroke of movement	24+/-0.5mm
Weight of holder and spindle	155+/-1g



### Power

220/110V 50/60Hz



### Weight

9 work-station type 90kg(net) 147kg(packed)  
4-6 work-station type 75kg(net) 110kg(packed)



### Dimension

9 work-station type  
Machine 850\*600\*340mm(L\*W\*H)  
Machine+Accessories 990\*840\*770mm(L\*W\*H)  
4-6 work-station type  
Machine 710\*530\*340mm(L\*W\*H)  
Machine+Accessories 840\*720\*640mm(L\*W\*H)  
(The machine is 9 work-station type, 4-6 type appearances are different)

### Accessories

(Note: 4-6-9, 8-12-18 refers to the number of accessories for the 4-6-9 work station type separately.)

Fuse tube	2pcs
Foam wool	4-6-9 pcs Φ38 mm
Wool felt	8-12-18 pcs Φ90 mm, Φ140 mm
Wool abrasive	4-6-9 pcs Φ140 mm
Sampling plate	3 pcs Φ38 mm, Φ90 mm, Φ140 mm
Sampler	1 pc for pilling test
Sampler	1 pc for abrasion test
Press	1 pc Φ126mm, 2.5kg
Fixture1	4-6-9 sets for pilling test
Fixture 2	4-6-9 sets for abrasion test
Weight 1	4-6-9 sets 12Kpa
Weight 2	4-6-9 sets 9Kpa
Rubber ring	4-6-9 pcs
Test pen	1pc
Connection shaft	4-6-9 pcs for pilling test
Connection shaft	4-6-9 pcs for abrasion test
Stainless steel ring	4-6-9 pcs 260g

### Optional Accessories

EMPA990 rating chart card	1 set	knitted + Woven
SM50 rating chart card	1 set	IWS + ASTM
SM25 abrasion resistant wool cloth	1 pack	1.6 X 5m/pack
Sm26 woven wool felt	1 box	24 pcs/box Φ140mm
Sm26 woven wool felt	1 box	24 pcs/box Φ90 mm
SM28 polyurethane ether foam	1box	250 X 200mm/pc, 25pcs/box

### Standards

ISO 12945-2-2020 ISO12947-1-1998 ISO12947-2-2016  
ISO12947-3-1998 ISO12947-4-1998  
GB/T 21196.1-2007 GB/T 21196.2-2007  
GB/T 21196.3-2007 GB/T 21196.4-2007  
GB/T 4802.2-2008 BS EN 530-2010  
ASTM D4970/4970M-22 ASTM D4966-22

### Optional Standards

BS EN 388-2016+A1-2018 Protective gloves for mechanical hazards;  
SATRATM31 A/B Abrasion Resistance Test for Leather;  
PUMA; BS EN 16094-2012 Laminated wood flooring,  
Test method for the determination of micro-scratches;  
ISO 20344-2021 Item 6.12 Personal protective equipment,  
Test methods for footwear and boots;  
BS EN 13520-2002 Test methods for footwear, uppers,  
linings and insoles, abrasion resistance;  
ISO 5470-2-2021 Rubber or plastic coated fabrics,  
determination of abrasion resistance