



## smartindale Martindale Abrasion & pilling Tester

Smartindale Martindale Abrasion and Pilling Tester is used for fabric abrasion and pilling tests. It generates a Lissajous curve with a digital algorithm, and then drives the friction, achieving accurate running without calibration. You can switch test modes such as the abrasion test to the pilling test with one click without changing the pins.

You can also control and monitor the Smartindale from your smartphone by SmarTexLab app connection, and the test data can be uploaded to ERP or LIMS system, to realize smart testing.

It can test the abrasion and pilling resistance of cotton, linen, silk woven fabrics and other textiles, film materials, knitted fabrics, woolen fabrics, artificial leather, synthetic leather, gloves, labor protection materials, and so on. It is widely applicable to more than 20 international standards such as ISO 12945-2-2020, ISO 12947-2-2016, BS EN 530-2010; ASTM D4970/4970M-22, etc.

# Smartindale Martindale Abrasion & Pilling Tester



- The Lissajous curve is calibration-free, making it a more reliable test.**

Smartindale runs by an exclusive and patented digital algorithm that drives dual servo motors and precision slide rails, replacing the traditional mechanical analog drive to generate a perfect Lissajous curve. After more than 10 million times (equal to three years non-stop) of ultra-high intensity friction life test with rubber simulation specimen and double weight, the Lissajous curve is still accurate and perfect, so the test is more reliable.
- Can be connected to ERP or LIMS through an APP, more smart**

Smartindale can be connected to the APP SmarTexLab installed on your smartphone, then you can set the parameters, monitor the test status, etc. After the completion of the test, the sample information, the test process, and the results can be uploaded to ERP or LIMS, to achieve smart testing, more in line with the requirements of the laboratory management system (ISO17025), such as CNAS or ILAC, so that the entire testing process is more convenient, transparent, and efficient.
- One-touch switching between abrasion and pilling testing, for greater efficiency.**

You can switch the test modes (e.g. abrasion to pilling) on the control panel, no need to remove the cover plate and change the pin position.
- User-friendly design**

The flip-up guide plate can be lifted with one hand, which is convenient for loading samples and taking samples; there is a cushioning function when the cover plate falls, which avoids damaging the machine and is safer for the operators.

## The Specification of Smartindale

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**  
90kg



**Dimension**  
510\*850\*300 mm(W\*L\*H)

## Accessories

Fuse tube	2pcs
Foam wool	9 pcs Φ38 mm
Wool felt	18 pcs Φ90 mm, Φ140 mm
Wool abrasive	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	9 sets for pilling test
Fixture 2	9 sets for abrasion test
Weight 1	9 sets 12Kpa
Weight 2	9 sets 9Kpa
Rubber ring	9pcs
Test pen	1pc
Connection shaft	9pcs for pilling test
Connection shaft	9pcs for abrasion test
Stainless steel ring	9pcs 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



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