

## Scratch Hardness Tester

Scratch Hardness is the ability of a material surface to resist usually by scratch and abrasion. It used to determine the hardness of a material and its ability to resist scratching. When testing the surface of the coating, by scratch hardness a necessary force is applied to cut through the film to the substrate.

**Standard:** IS 101 (Parts 5/ Sec. 2), ISO 1518, BS 3900 E2, ASTM D 5178, ASTM D 2197.

### Raj Make

Scratch Hardness Testers available into two models.

Automatic Scratch Hardness Tester.

Hand Operated Scratch Hardness Tester.

## Automatic Scratch Hardness Tester

It is used for evaluating the resistance of coatings on the substrate by scratching with specific weight and needle. A one side coated panel is clamped at the platform of the automatic scratch tester, specified weight is applied on the weight holding rod and the needle is scratched on the coated surface at a constant speed 30 to 40 mm/s automatically.

The voltmeter indicates the contact between the needle and the metallic surface with the help of light and buzzer simultaneously. It also produces the beep noise as indication when the needle and the metallic surface contact with each other. It means that the needle scratched the coating and touched the surface of the substrate.

The Automatic Scratch Hardness Tester is made up of Mild Steel with durable powder coating, sliding plate is made up of mild Steel and the needle is made up of hard stainless steel with a hemispherical ball Ø1mm made up of Tungsten Carbide. It is widely used in paint and coating industries, pipe, steel and fabrication industries etc.

### Technical Specifications:

Scratch Speed	: 30 to 40 mm/s
Needle or Stylus	: Hard Stainless Steel with hemispherical ball Ø1mm (Tungsten Carbide)
Scratch Length	: 60 mm
Panel Size	: 150 x 75 x 1 mm
Load Capacity	: 1.5 Kg / 5 Kg

### Package Includes:

Automatic scratch hardness tester, weights, two needles, spares, manual and calibration certificate.

In 1.5 kg supplying weights of 100 gm, 200 gm, 200 gm and 1000 gm.

In 5.0 kg supplying weights of 100 gm, 200 gm, 200 gm, 500 gm, 1000 gm, 1000 gm and 2000 gm.

### Ordering Informations:

Ref No. 132/1 Capacity 1.5 Kg

Ref No. 132/5 Capacity 5 Kg

**HSN Code:** 90248099



## Hand Operated Scratch Hardness Tester

Hand operated scratch tester is an instrument used for evaluating the resistance of coating on the substrate by scratching with weights and needles manually. A one side coated panel is clamped at the platform of the hand operated scratch tester, specified weight is applied on the weight holding rod and the needle is scratched on the coated surface with the help of movable sliding surface by hand. When the needle scratch the coating and needle tip come in contact with the metallic surface buzzer will produce beep noise for indication.

The Hand Operated Scratch Hardness Tester is made up of Mild Steel with durable powder coating, base plate is made up of mild Steel and the needle is made up of Tungsten Carbide. It is widely used in paint and coating industries, pipe, steel and fabrication industries etc.

### Technical Specifications:

Scratch Speed	: Manually
Needle or Stylus	: Hard Stainless Steel with hemispherical ball Ø1mm (Tungsten Carbide)
Scratch Length	: 60 mm
Panel Size	: 150 x 50 x 1 mm
Load Capacity	: 1.5 Kg / 3 Kg

### Ordering Informations:

Ref No. 133/1 Capacity 1.5 Kg

Ref No. 133/3 Capacity 3 Kg

### Accessories required for testing:

- MS panel size :- 150 x 75 x 1 mm (AST)
- MS panel size :- 150 x 50 x 1 mm (HOST)

**HSN Code:** 90248099

