

# Taber® 710 Multi-Finger Scratch/Mar Tester



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The design of Taber's Multi-Finger Scratch / Mar Tester is based on the apparatus described in automotive specifications (including Ford BN 108-13; General Motors GMN3943; and Daimler-Chrysler LP-463DD-18-01) , which is commonly referred to as a five-finger (five-arm) scratch & mar tester.

The instrument includes a pneumatically driven, moveable sledge to which the test sample is mounted. The sledge moves in a linear fashion, and is operated by a control knob for one or multiple pass testing. An electronic timer displays the rate of speed, which can be controlled by reducing or increasing air pressure.

A gantry supports five independent splined-fingers, which provide a constant, vertical load on interchangeable scratch pins (1.0mm or 7.0mm diameter hemisphere). The gantry system includes a handle to raise and lower the arms. In addition, five support rests are incorporated to allow one or more arms to be moved to an upright, rest position such that the arm does not contact the specimen during testing.

Individual weights of varying loads mount to the top of each arm finger to exert a standard force on the surface of the test material. Each instrument includes a weight set of 2N, 3N, 4N, 5N, 6N, 7N, 10N, 15N and 20N loads. Other weights are available for 8N, 13N, 18N and 25N.

Although flat specimens up to 22mm thick are normally tested, the 'free-floating' arms fingers enable you test evaluate slightly contoured specimens provided they are rigid or adequately supported. A spring-loaded specimen holder is standard and can be mounted to the end or side of the moveable sledge for greater flexibility. To mount contoured specimens, an optional set of 'moveable' hold-down clamps is available.

Each unit is supplied complete with:

- Spline Shaft Finger Assembly (5 each)
- Scratch Tip, 1.0 mm Diameter Hemisphere (5 each)
- Mar Tip, 7.0 mm Diameter Hemisphere (5 each)
- 9-Piece Weight Set
- Electronic Timer with Digital Display
- Adjustable Specimen Clamp (set of 2)
- Quick Disconnect Socket for Air Supply
- Hex Wrench

Washability, Brushability and Abrasion Testers
Improved mechanical resistance is part of today's quality requirements. One important criteria for assessing this feature is abrasion resistance.

Depending on the nature and purpose of the product, various testing methods are available.

There are testing methods are related to the "abrasion by friction" concept. Others are based on the projection of abrasive particles on to the test specimen. These techniques provide valuable information about materials and processes. To meet industry's growing needs for research and control,

Elcometer develops, manufactures and supplies a range of instruments designed for wear resistance tests. Standardised or conventional, these tests are widely used for numerous applications.

Model	Description	Part Number
Elcometer 710	Multi-Finger Scratch/Mar Tester	ST980710
Accessories	Scratch Tip, 1.0mm diameter hemisphere (each / Pk of 5)	ST132347 / ST132532
	Mar Tip, 7.0mm diameter hemisphere (each / Pk of 5)	ST132348 / ST132533
	Optional Weight Set (8N, 13N, 18N)	ST132401
	Optional Weight - 25N	ST132352-5
	Specimen Hold-Down Clamp	ST132399

# data sheet

## **Related Products**



Elcometer Taber 5130

Often referred to as the industry standard the Taber rotary abrasers are written in to many standards throughout the world in many different industries. A sample of the product is positioned onto a rotating table and the user's choice of abrading wheels then apply the unique 'tearing' or abrasion pattern.



Floometer Taber 5700

This linear abraser uses a free floating head to follow the contours of the sample under test - making it an ideal choice for abrasion testing of any curved surface.

# elcometer

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