

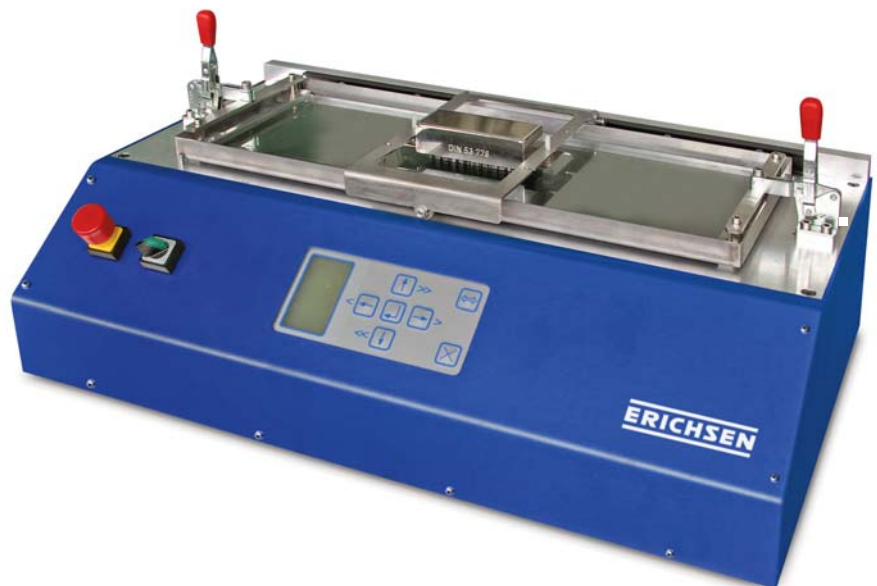
**Washability and
Scrubbing
Resistance Tester
Model 494 MC**

**Operation via
keyboard and display**

**adjustable stroke rate and
stroke path**

**Parameter storage for
20 test cycles**

**up to 3 tests
simultaneously**



testing equipment for quality management

ERICHSEN
since 1910

Technical Description

**DIN 53 778-2
ASTM D 2486
DIN EN ISO 11998**

**For the assessment of
the washing and scrubbing
resistance as well as
cleanability of dispersion
paints**

Purpose and Application

The **ERICHSEN Washability and Scrubbing Resistance Tester, Model 494 MC**, is mainly intended for the determination of the washing and scrubbing resistance as well as cleanability of dispersion paints (specifically "wall paints"). The wide range of its adjustable parameters allows also some further tailored/customized testing matters (for example for testing cleaning agents/solutions, etc.) as well.

Principle of Test

In the above standard applications a matt black PVC foil will be coated, and - if required - soiled in a defined manner. After clamping into the device it will be exposed under the influence of a washing liquid the stress of the moving scrub body:

a) Test in accordance with DIN 53 778- 2 *)

The scrub body is a defined pig bristle brush, which is charged with 250 g. The washing fluid is continuously fed by a micro dosing pump. Whether the contamination has been removed or the coating is scrubbed through to the substrate, will be checked after an agreed number of scrubbing cycles.

*) withdrawn, replaced by DIN EN ISO 11998

b) Test in accordance with ASTM D 2486

The scrub body is a defined nylon brush, which is charged with 454 g. The washing liquid is applied manually during the test at regular intervals and in a defined amount. For sharpening the wear effect of the scrubbing action, a narrow thin strip of metal sheet will be placed centrally and transversely to the stroke direction under the foil. The test result is the number of double strokes up to scrubbed through to the substrate.

c) Test in accordance with DIN EN ISO 11 998

The scrubbing body is a defined type of abrasive pad **) loaded with 135 g, which is moistened prior to the test only once with a defined quantity of the washing fluid. After scrubbing strain (200 double strokes) the mass loss per unit area of the coating and the average layer thickness loss will be determined.

**) Abrasive pad "3M Scotch Brite, No. 7448" can be obtained from the local dealer.

Design and Operation

The instrument (attached with leveling feet) has a top cover plate on which the steel trough for the testing performance is placed. Further, it is equipped with two specimen clamping devices. A high-precision step motor operated by a micro-controller allows a periodic linear movement of the drive frame which holds/guides the abrasion bodies, with a high repeatability. The swivel-mounted frame for inserting the abrasion bodies is designed for holding/guiding up to three of them. Due to this up to three parallel abrasion tests are possible. For tests according with DIN EN ISO 11998, the supplied ISO adapter has to be mounted.

The operation via keypad and 6-line-display is comfortable, with the functions:

- **controlling** the stroke (start, stop, reset),
- **setting the test parameter** (stroke rate, stroke path, number of double strokes),
- **storage** of frequently used test sequences (up to 20 sets of parameters).

Technical Data

Dimensions (WxDxH) (590 x 370 x 280) mm

Weight (net) approx. 22 kg

Power supply (100 - 240) VAC
(External wide-range power adapter) (47 - 63) Hz,
24 VDC / 3 A

Stroke rate (5 - 70) double strokes/min

Stroke path (10 - 300) mm, depending
on the stroke rate

Order Information	
Order-No.	Product-Description
0301.01.31	Washability and Scrubbing Resistance Tester, Model 494 MC
The scope of supply includes:	
<ul style="list-style-type: none"> ◆ Steel trough with outflow connection ◆ Glass plate ◆ Spirit level ◆ ISO adapter ◆ External wide-range power adapter ◆ Operating instructions 	

Accessories	
Order No.	Product-Description
0068.01.32	DIN Equipment Pig bristle brush, brush holder, rubber lining
0068.02.32	ASTM Equipment Nylon brush, brush holder, rubber lining, clamping frame with seal, 2 metal strips
0787.01.32	Abrasive Pad Holder Plate for tests in accordance with DIN EN ISO 11998
0087.01.32	Micro Dosing Pump
0070.01.32	PVC foil , black, fine matt finish size (430 x 165) mm
0070.02.32	PVC foil , black, fine matt finish size (430 x 280) mm

The right of technical modifications is reserved.
Group 15 - TBE 494 MC - IX/2012