

Elcometer 124

Foil Thickness Gauge

Operating Instructions



elcometer® is a registered trademark of Elcometer Limited.

All other trademarks acknowledged.

© Copyright Elcometer Limited. 2009.

All rights reserved. No part of this Document may be reproduced, transmitted, transcribed, stored (in a retrieval system or otherwise) or translated into any language, in any form or by any means (electronic, mechanical, magnetic, optical, manual or otherwise) without the prior written permission of Elcometer Limited

A copy of this Instruction Manual is available for download on our Website via www.elcometer.com.

*Doc.No. TMA-0078 Issue 05
Text with Cover No: 4364*

CONTENTS

Section	Page
1 Introduction	2
2 Using a foil thickness gauge	3
3 Using the Elcometer 124 with Elcometer 122 Testex tape	4
4 Maintenance	4
5 Technical specification	5
6 Related equipment	5

Thank you for your purchase of the Elcometer 124 Foil Thickness Gauge. Welcome to Elcometer.

Elcometer are world leaders in the design, manufacture and supply of inspection equipment for coatings and concrete. Our products cover all aspects of coating inspection, from development through application to post application inspection.

The Elcometer 124 Foil Thickness Gauge is a world beating product. With the purchase of this product you now have access to the worldwide service and support network of Elcometer. For more information visit our website at www.elcometer.com

1 INTRODUCTION

The Elcometer 124 Foil Thickness Gauge measures the thickness of sheet material, foils and the size of small items.

It is mainly used to measure Elcometer 122 Testex Tape, which records surface profiles.

1.1 STANDARDS

Together, your Elcometer 124 Foil Thickness Gauge and Elcometer 122 Testex Tape can be used in accordance with the following National and International Standards: ASTM D4417-C, BS ISO 8503-5, NACE RP 0287, US Navy NSI 009-32, US Navy PP1 63101-000.

1.2 WHAT THE BOX CONTAINS

- Elcometer 124 Foil Thickness Gauge
- Operating Instructions

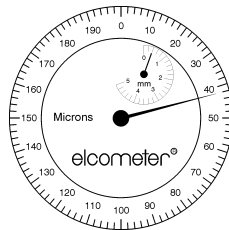
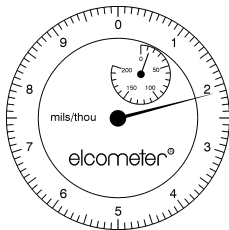
2 USING THE FOIL THICKNESS GAUGE

1. Open the jaws by the lever at the top of the dial
2. Insert the sample between the anvils. Gently release the lever.
3. The long needle indicates small changes in thickness, the short needle shows how many complete turns made by the long needle.

To set Zero, check that the measuring faces of the anvils are clean. Release the knurled screw on the top left of the dial and turn the scale until '0' lines up with the end of the long needle. The short needle should be close to '0'.

To calculate the thickness, first look at the short needle to see how many revolutions have been counted on the small scale. Multiply this number by the full-scale value and add on the long needle reading to obtain the total thickness.

The two black markers on the outer edge of the dial can be positioned to indicate the upper and lower specification limits.



3 USING THE ELCOMETER 124 WITH ELCOMETER 122 TESTEX TAPE

Elcometer 122 Testex Tape comprises two layers of plastic; a soft layer which carries an impression of the rough surface and a hard layer 50 microns (2 mil) thick which acts as a substrate for the soft layer. Only the thickness of the soft layer needs to be recorded.

The Elcometer 124 can be set to subtract automatically the thickness of the hard layer from the total thickness of the tape:

- Ensure the faces of the anvil are clean.
- Loosen the knurled screw near the top of the dial and rotate the large scale clockwise until the long needle points to 150 microns or 8 mil.
- Tighten the knurled screw.

Readings of Elcometer 122 Testex Tape samples will now be shown directly by the long needle, effectively by having 50 microns (2 mil) subtracted from the total thickness.

4 MAINTENANCE

Elcometer products are designed to give many years reliable service under normal operating and storage conditions.

Ensure the anvils are kept clean.

5 TECHNICAL SPECIFICATION

Material:	Stainless steel	
Dimensions:	120 x 95 x 25mm (4.6 x 3.6 x 1.0")	
Weight:	260g (9oz)	
Scale:	Metric	Imperial
Total range:	5 mm (5000 microns)	0.25" (250 mil)
Each division:	0.002 mm (2 microns)	0.0001" (0.1 mil)
Full scale value:	0.2 mm (200 microns)	0.010" (10 mil)
Revolutions:	25	25

Your Elcometer 124 Foil Thickness Gauge may be packed in a cardboard and foam package. Please ensure that this packaging is disposed of in an environmentally sensitive manner. Consult your local Environmental Authority for further guidance.

6 RELATED EQUIPMENT

In addition to the Elcometer 124 Foil Thickness Gauge, Elcometer produces a wide range of other thickness equipment. Users of the Elcometer 124 Foil Thickness Gauge may also benefit from the following Elcometer product ranges:

- Elcometer 122 Testex Replica Tape
- Elcometer 121 Universal Paint Inspection Gauge

For further information contact Elcometer, your local Elcometer supplier or visit www.elcometer.com