English

Elcometer
4260 • 4270 • 4280 • 4290

Sag/Levelling Tester

Operating Instructions

English

elcometer is a registered trademark of Elcometer Instruments Ltd.
All other trademarks acknowledged.

© Copyright Elcometer Instruments Ltd. 2006.
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 Instruments Ltd.

Doc.No. TMA-0356 Issue 02
Part No: 19687

CONTENTS

Section		Page
1	About this instrument	2
2	Application procedure	4
3	After application	5
4	Storage	6
5	Maintenance	6
6	Technical specification	7
7	Related Elcometer equipment	8

Thank you for your purchase of this Elcometer Sag/Levelling Tester. 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.

This Elcometer Sag/Levelling Tester 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 ABOUT THIS INSTRUMENT

The Elcometer Sag/Levelling Tester is a simple but effective instrument for applying uniform and reproducible strips of coating to a flat and relatively firm substrate. After application, the strips of coating are then assessed to determine the sag or levelling characteristics of the coating.

The applicator is placed at one end of the substrate and product is poured onto the substrate in front of the applicator or into the reservoir of the applicator (depending upon model).

The applicator is then pushed across the substrate to produce the strips of coating. Your applicator can be pushed by hand or by a motorised film applicator.

1.1 STANDARDS

Depending upon model, this instrument can be used in accordance with the following National and International Standards:

FTMS 141A Method 4494

1.2 THESE INSTRUCTIONS

These instructions describe the operation of the following Elcometer products:

- Elcometer 4260 NYPC Levelling Tester
- Elcometer 4270 Sag Tester
- Elcometer 4280 NYPC Levelling and Sag Tester
- Elcometer 4290 Sag Quadruplex Film Applicator

1.3 WHAT THE BOX CONTAINS

- Elcometer Sag/Levelling Tester
- Storage case
- Operating instructions

Your Elcometer Sag/Levelling Tester is packed in a cardboard and foam package. Please ensure that all packaging material is disposed of in an environmentally sensitive manner. Consult your local Environmental Authority for further guidance.

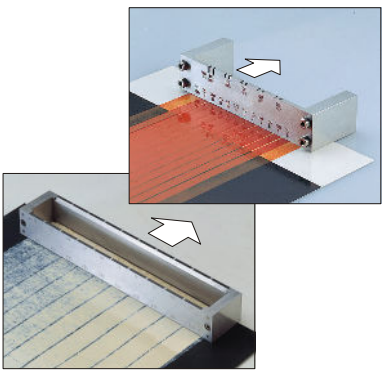
To maximise the benefits of your new Elcometer Sag/Levelling Tester please take some time to read these Operating Instructions. Do not hesitate to contact Elcometer or your Elcometer supplier if you have any questions.

2 APPLICATION PROCEDURE

Take care while you are handling and using your Elcometer Sag/Levelling Tester. Damage to the working surfaces will affect the film thickness and the instrument may have to be replaced.

Before each use, check the working surfaces for irregularities and damage.

1. Fix a clean substrate on a flat and horizontal base such as a vacuum table.
2. Place the applicator down at one end of the substrate. The Elcometer 4290 should be positioned with the required gap in contact with the substrate and facing away from the direction of travel.



3. Pour a quantity of product in front of the applicator or into the reservoir of the applicator (depending upon model). Ensure that the product is evenly distributed over the whole width of the instrument.

4. Spread the film over the substrate by moving the applicator towards the opposite end of the substrate at a constant speed.
5. Lift the applicator from the substrate taking care to catch any product dripping from the applicator before it lands on the newly prepared film.

WHEN TESTING FOR SAG:

Immediately place the substrate in a vertical position with the thinnest strip at the top. The thickness at which the strips join indicates the tendency of the coating to sag.

WHEN TESTING FOR LEVELLING:

Leave the substrate undisturbed on a flat horizontal surface for the coating to cure. Once the coating is dry, identify the thickness at which the pair of film strips merge.

3 AFTER APPLICATION

Clean your film applicator.

Do not use very aggressive solvents or wire brushes, metal scrapers, metal files or other metallic tools for cleaning.

Clean the applicator using a suitable solvent.

After cleaning, ensure that all materials are removed and that the instrument is dry.

4 STORAGE

When the applicator is not being used it must be protected from rust. Rust can appear when the instrument is only used occasionally and when it has been handled by users with sweaty hands.

To protect against rust, always dry the applicator after use and apply a thin layer of oil to the surface before storage. Elcometer recommends the use of an oil which does not harden during drying such as Castrol Rustilo DW 378.

Always store the applicator in the case provided.

5 MAINTENANCE

The Elcometer Sag/Levelling Tester is designed to give many years reliable service under normal operating and storage conditions.

Regular calibration checks over the life of the thickness gauges are a requirement of quality management procedures e.g. ISO 9000 and other standards. For checks and certification contact Elcometer or your local supplier.

6 TECHNICAL SPECIFICATION

All models are manufactured in hardened stainless steel.

Model	Function	Film Thickness		Notch Depth		Part number	
		(µm)	(mils)	(µm)	(mils)	Metric	Imperial
4260	Levelling	-	-	254 to 4064	10 to 160	K0004260M001	K0US4260M001
4270/1	Sag	75 to 300	3 to 12	-	-	K0004270M001	K0US4270M001
4270/2		25 to 150	1 to 6	-	-	K0004270M002	K0US4270M002
4270/3		350 to 1500	14 to 60	-	-	K0004270M203	K0US4270M203
4270/4		100 to 600	4 to 24	-	-	K0004270M204	K0US4270M204
4280	Levelling + Sag	75 to 300	3 to 12	254 to 4064	10 to 160	K0004280M001	K0US4280M001
4290/1	Sag + Opacity	25 to 450	1 to 18	-	-	K0004290M001	K0US4290M001
4290/3		10 to 400	0.4 to 15.5	-	-	K0004290M003	K0US4290M003
4290/2		10 to 500	0.4 to 20	-	-	K0004290M002	K0US4290M002

Model Elcometer 4290/1 has 4 strips

7 RELATED ELCOMETER EQUIPMENT

Elcometer produces a wide range of coatings inspection gauges and related equipment.

Users of this Elcometer Sag/Levelling Tester may also benefit from the following Elcometer products:

- Elcometer Fineness of Grind Gauges
- Elcometer Viscosity Meters
- Elcometer Motorised Film Applicators
- Elcometer Leneta Test Charts
- Elcometer Drying Time Recorders
- Elcometer Washability, Brushability and Abrasion Testers
- Elcometer Hardness Testers

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