

Elcometer 3233

Pfund Thickness Gauge

Operating Instructions

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Thank you for your purchase of this Elcometer 3233 Pfund 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.

This Elcometer 3233 Pfund 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

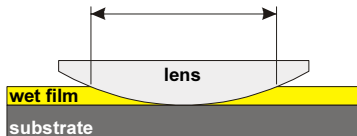
1 ABOUT THIS GAUGE

The Elcometer 3233 Pfund Thickness Gauge is a simple but effective gauge which is used to determine the wet film thickness of paints and similar products. The gauge is ideal for measurement of translucent products (varnish, oil, etc.)

The gauge consists of two concentric cylinders, one sliding inside the other. A spherical glass lens is fitted to the bottom of the inner cylinder.

When the gauge is pressed down onto the surface being tested the lens becomes immersed in the wet film. The thicker the film, the greater the diameter of the paint spot left on the lens.

For ease of use, the gauge includes a stainless steel rule for measuring the diameter of the paint spot. A conversion table in these instructions allows the diameter to be converted into film thickness.



1.1 STANDARDS

Your Elcometer 3233 Pfund Thickness Gauge can be used in accordance with the following Standards; ASTM D 1212 - Test method B, NFT 30-125.

1.2 WHAT THE BOX CONTAINS

- Elcometer 3233 Pfund Thickness Gauge
- Stainless steel rule
- Storage case
- Operating instructions

Your Elcometer 3233 Pfund Thickness Gauge is 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.

To maximise the benefits of your new Elcometer Pfund Thickness Gauge 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 MEASURING FILM THICKNESS

2.1 BEFORE YOU START

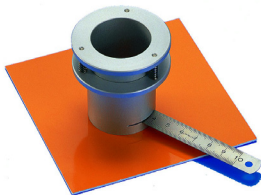
Ensure that your Elcometer 3233 Pfund Thickness Gauge is clean and dry.

2.2 PROCEDURE

1. As soon as possible after the coating has been applied, place the gauge onto the surface being tested.
2. Press down firmly on the top flange of the gauge to force the lens into the wet film.
3. Release pressure on the top flange and then remove the gauge from the surface.
4. Use the steel rule to measure to the nearest millimetre the diameter of the paint spot on the lens.
5. Look up the film thickness using the table in paragraph 3, or calculate film thickness using the following formula:

$$\text{Film Thickness} = \frac{D^2}{4000}$$

where D is the diameter of the paint spot and all measurements are in millimetres.



2.3 AFTER APPLICATION

Clean your gauge.



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



Clean the gauge using a suitable solvent only.

After cleaning, ensure that all materials are removed and that the instrument is dry. Store the gauge in the plastic case provided.

3 FILM THICKNESS

Spot diameter (mm)	Film thickness (mm)	Coverage (m ² /litre)	Coverage (ft ² /US gallon)	Coverage (ft ² /imp. gallon)
3	0.00225	445	18088	21800
4	0.004	250	10175	12250
5	0.00625	160	6512	7840
6	0.009	111	4522	5440
7	0.01225	81.6	3321	4000
8	0.016	62.5	2543	3340
9	0.02025	49.5	2009	2425
10	0.025	40	1628	1960
11	0.03025	33	1350	1640
12	0.036	28	1130	1372
13	0.04225	24	963	1176
14	0.049	20	830	980
15	0.05625	18	723	880
16	0.064	15.6	636	765
17	0.07225	13.8	563	676
18	0.081	12.3	502	603
19	0.09025	11	450	548
20	0.1	10	407	490
21	0.11025	9.07	369	443
22	0.121	8.26	336	405
23	0.13225	7.56	307	370

Spot diameter (mm)	Film thickness (mm)	Coverage (m²/litre)	Coverage (ft²/US gallon)	Coverage (ft²/imp. gallon)
24	0.144	6.95	282	340
25	0.15625	6.4	260	313
26	0.169	5.92	241	290
27	0.18225	5.49	223	268
28	0.196	4.1	207	250
29	0.21025	4.76	193	233
30	0.225	4.44	180	218
31	0.24025	4.16	169	204
32	0.256	3.9	158	192
33	0.27225	3.67	149	180
34	0.289	3.46	141	169
35	0.30625	3.26	133	160
36	0.324	3.08	125	152
37	0.34225	2.82	117	138
38	0.361	2.77	113	129

4 TECHNICAL SPECIFICATIONS

Material:	Aluminium (3233/1) Stainless steel (3233/2)
Lens radius of curvature:	250 mm (9.84")

5 RELATED EQUIPMENT

In addition to the Elcometer 3233 Pfund Thickness Gauge, Elcometer produces a wide range of other coating testing equipment.

Users of the Elcometer 3233 Pfund Thickness Gauge may also benefit from the following Elcometer products:

- Elcometer Surface Profile Gauges
- Elcometer Surface Cleanliness Test Kits
- Elcometer Climatic Condition Testers
- Elcometer Dry Coating Thickness Gauges

For further information contact Elcometer or your local supplier.

Details of Elcometer offices around the world are given on the outside cover of these operating instructions. Alternatively visit the Elcometer website, www.elcometer.com