Elcometer 456 coating thickness gauge

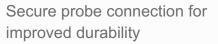
Specialised probes to meet a wide range of applications

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Integral and separate gauges to measure coatings up to 30mm (1200mils)

Dust and water resistant rugged design equivalent to IP64

Bigfoot™ integral probe for accurate and repeatable measurements





Ergonomic design for comfort during continuous use



2.4" colour screen provides enhanced reading visibility at all angles

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Fast reading rate of more than 70 readings per minute

Large easy to read colour display

Scratch and solvent resistant screen

Alpha numeric batch identification

Large buttons with positive feedback

USB and Bluetooth<sup>®</sup> data output to ElcoMaster<sup>™</sup> 2.0 software

The new Elcometer 456 makes measuring coating thickness faster, reliable and accurate.

Over 60 years of product design experience has gone into the development of this gauge. We think you will agree that the new Elcometer 456 is something special.

Designed with you in mind

Whilst others have tried to emulate the Elcometer 456 we have continued to develop features to make the new Elcometer 456 even more powerful, rugged and easier to use.

The Elcometer 456 sets new standards; providing reliable and accurate coating thickness measurements; helping you to become more efficient.



- Large buttons ideal for gloved hands
- Easy to use menus in multiple languages
- High contrast colour LCD with auto rotate
- High and low reading limit indicators
- Factory calibrated for immediate use

#### Accurate

- Measurement capability to ±1%
- Conforms to National & International Standards
- Temperature stable measurements
- Increased reading resolution for thin coatings
- Measures accurately on smooth, rough, thin and curved surfaces

#### Reliable

- Repeatable and reproducible
- 2 year gauge warranty<sup>1</sup>
- Supplied with fully traceable test certificates
- Batch date and time stamp facility



#### Rugged

- Sealed, heavy duty and impact resistant
- Dust and waterproof equivalent to IP64
- Scratch and solvent resistant display
- Durable gauge and probe construction
- Suitable for use in harsh environments

#### Efficient

- Fast reading rate of 70+ per minute
- Multiple calibration memories
- Alpha numeric batch identification
- User selectable calibration methods
- Compatible with all Elcometer software including ElcoMaster 2.0

#### Powerful

- Wide range of interchangeable probes
- USB and Bluetooth data output
- Stores up to 75,000 readings in 999 batches
- Measures up to 30mm (1200mils) of coating on metal substrates









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**Product Features** 

Standard Optional

	Model E	Model B	Model S	Model T
Fast, accurate reading rate; 70+ readings per minute		-		
Repeatable & reproducible measurements		-	-	
Easy to use menu structure; in 25+ languages		-	-	•
Tough, impact, water & dust resistant; equivalent to IP64	-	-	-	
Bright colour screen; with permanent back light	-	-	-	•
Scratch & solvent resistant display; 2.4" (6cm) TFT	100 B	-		
Large positive feedback buttons	100 B	-		
USB power supply; via PC	100 B	-		•
Test certificate	100 B	•		
2 year gauge warranty		-		•
Automatic rotating display; 0°, 90°, 180° & 270°		-		•
Ambient light sensor; with auto brightness adjust		-	-	•
Emergency light mode		-		•
Gauge software updates <sup>1</sup> ; via ElcoMaster 2.0 software		-		
Data output		-		•
USB; to computer		-		•
Bluetooth <sup>®</sup> ; to computer, pda or mobile phone		-		
On screen statistics		-		•
Number of readings; $\eta$		-		
Mean (average); x		-	-	•
Standard deviation; $\sigma$		-	-	
Highest reading; hi		-	-	
Lowest reading; /o		-		•
Coefficient of variation; COV		-		•
Elcometer index value <sup>2</sup> ; EIV		-		
Nominal dry film thickness; NDFT			-	
IMO PSPC; %>NDFT, %>90 <ndft, 90:10="" fail<="" pass="" td=""><td></td><td></td><td>-</td><td></td></ndft,>			-	
High & low limits; definable audible & visual alarms			-	
Number above high limit;				
Number below low limit;				
ElcoMaster 2.0 software & USB cable			-	
Alarm; daily (d), interval (i)			d	d,i
Replaceable screen protectors				
Leather effect protective case				
Plastic transit case				
Integral models; with automatic gauge switch on		-		
Probe type; Ferrous (F), Non-Ferrous (N), Dual (FNF) <sup>3</sup>	F, FNF	F, N, FNF	F, N, FNF	F, N, FNF
Measurement range	0-1500µm 0-60mils	0-13mm 0-500mils	0-1500µm 0-60mils	0-1500µm 0-60mils
Separate models; with automatic probe recognition		•		
Probe type; Ferrous (F), Non-Ferrous (N), Dual (FNF) <sup>3</sup>		F, N, FNF	F, N, FNF	F, N, FNF
Measurement range; see pages 11-13 for probe selection		0-30mm 0-1200mils	0-30mm 0-1200mils	0-30mm 0-1200mils

<sup>1</sup>Internet connection required <sup>2</sup>Elcometer Index Values are used in the automotive industry to assess a coating's overall quality; USA patent number US7606671B2 <sup>3</sup>FNF patent numbers UK: GB2306009B; USA: 5886522

#### **Product Features**

Standard Optional

	Model E	Model B	Model S	Model
On-screen calibration instructions; in 25+ languages		-	-	
Multiple calibration methods		-	-	
Factory, resets to the factory calibration		-	-	
2-point; for smooth and rough surfaces	-	-	-	
1-point; zero calibration		-	-	
Zero offset <sup>4</sup> ; for calibration according to ISO19840			-	
Predefined calibration & measurement methods			-	
ISO, SSPC PA2, Swedish, Australian			-	
Automatic calibration; for rapid calibration			-	
Calibration memory type; gauge (g) or gauge & batch (gb)	g	g	gb	gb
Number of batches; with unique calibrations			1	999
Calibration memories; 3 user-programmable memories				•
Measurement outside calibration warning				•
Calibration lock		-	-	
Delete last reading		-	-	
Gauge memory; number of readings		5	750	75,000
Individual batch calibrations; sent to PC via ElcoMaster 2.0			-	
Limits; user definable audible & visual pass/fail warnings			-	
Gauge (g) or gauge & batch specific (gb) limits			g	gb
Date and time stamp			-	
Batch types; normal, counted average, IMO PSPC			-	•
Review, clear & delete batches			-	•
Copy batches and calibration settings				
Alpha-numeric batch names; user definable on the gauge				•
Fixed batch size mode; with batch linking				

#### **Technical Specifications**

Display information	2.4" (6cm) QVGA colour TFT display, 320 x 240 pixels
Battery type	2 x AA dry cell batteries, rechargeable batteries can also be used
Battery life	~24 hours of continuous use at 1 reading per second <sup>5</sup>
Gauge dimensions (h x w x d)	140 x 72 x 45mm (5.51 x 2.83 x 1.77")
Gauge weight	154g (5.43oz) including supplied batteries
Operating temperature	-10 to 50°C (14 to 122°F)
Packing list	Elcometer 456 gauge, calibration foils (integrals only), wrist harness, transit case (T), protective case (B, S, T), 1 x screen protectors (S, T), 2 x AA batteries, operating instructions, USB cable (S, T), ElcoMaster 2.0 software (S, T) <i>For separate gauge probe options see pages 11-13</i>

Can be used in accordance with<sup>6</sup>:

AS 2331.1.4, AS 3894.3-B, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6B, BS 3900-C5-6A, BS 5411-11, BS 5411-3, BS 5599, DIN 50981, DIN 50984, ECCA T1, EN 13523-1, IMO MSC.215(82), IMO MSC.244 (83), ISO 1461, ISO 19840, ISO 2063, ISO 2360, ISO 2808-6A, ISO 2808-6B, ISO 2808-7C, ISO 2808-7D, ISO 2808-12, NF T30-124, SS 184159, SSPC PA 2, US Navy PPI 63101-000, US Navy NSI 009-32

<sup>4</sup>Zero Offset USA patent number US6243661 <sup>5</sup>Using default settings & lithium batteries supplied, alkaline or rechargeable batteries may differ <sup>6</sup>Orange standards denote current standards, those in grey have been superceded but are still recognised by some industries

#### Total Quality Assurance

Professional inspection reports provide a competitive advantage in today's industrial environment.

The new ElcoMaster<sup>™</sup> 2.0 is a fast, easy to use software solution for all your reporting requirements.

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ElcoMaster 2.0 allows you to download all your inspection measurements - from any Elcometer gauge

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Future proof your gauge and software

#12945-128

When ElcoMaster 2.0 is installed on a PC the software will inform you of any available software upgrades - when connected to the internet.

When you connect your new Elcometer 456 gauge to ElcoMaster 2.0 it will also inform you of any gauge enhancements - allowing you to directly upgrade your gauge.

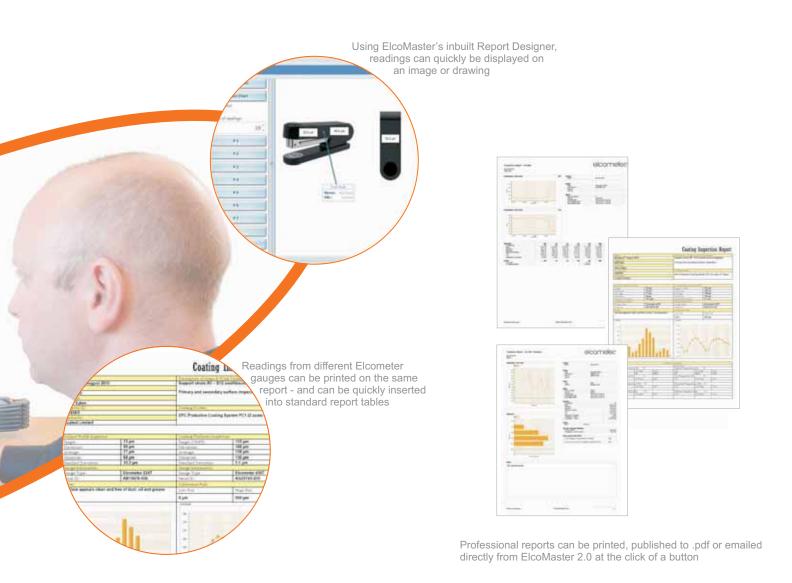
Data can be stored in a simple file tree, by project and by inspection type. Data is clearly displayed in tabular format



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Bluetooth\*

Using ElcoMaster 2.0's wizard, connecting a gauge to download data is fast and easy



Once you have recorded all your measurements using any Elcometer gauge, ElcoMaster 2.0 gives you the power to review your data on your PC in seconds.

ElcoMaster 2.0's internal wizards guide you through each step, from connecting a gauge to archiving - allowing you to produce professional reports quickly and easily.

Features include:

- Download and combine measurements from any Elcometer inspection gauge
- Import and attach photographs to your reports

- Export readings and images into Excel or other spreadsheet formats. Print, email or generate a .pdf file of your reports directly from the ElcoMaster 2.0 software
- Design your own reports or scan in your template and drag & drop readings or statistics onto the appropriate area of the report
- E-mail and import ElcoMaster 2.0 (.edf) files, ideal for combining multiple site inspections
- Using the 'webupgrade' feature ElcoMaster 2.0 informs you when there are any new enhancements to the Elcometer 456 gauge software or ElcoMaster 2.0 and allows you to upgrade your products yourself

### The Elcometer 456 Integral & Separate model range



The Elcometer 456 is available in four different models: E, B, S and T. Each gauge provides the user with increasing functionality - from the entry level Elcometer 456 E, to the top of the range Elcometer 456 T, with memory, alpha-numeric batching and Bluetooth<sup>®</sup> communication.

Integral gauges are ideal for single handed operation as the wide footprint of the Bigfoot<sup>™</sup> internal probe provides greater stability during measurement - allowing for consistent, repeatable and accurate results.

Separate models, with their wide range of probes, provide even greater measurement flexibility. See pages 11-13 for more details.

All probes are fully interchangeable; whilst ferrous gauges accept any ferrous probe and non-ferrous gauges accept any non-ferrous probes the dual FNF gauges accept all ferrous, non-ferrous and dual FNF probes.

#### Integral Model Options

Scale 1	Range:	0-1500µm (0-60mils) 0.1µm: 0-100µm; 1µm: 100-1500µm (0.01mil:	Accuracy <sup>*</sup> :	±1-3% or ±2.5µm (±0.1mil)
	Resolution:	0.1µm: 0-100µm; 1µm: 100-1500µm (0.01mil:	0-5mils; 0.1mil	: 5-60mils)

	Model E	Model B	Model S	Model T
Elcometer 456 Ferrous Integral	A456CFEI1	A456CFBI1	A456CFSI1	A456CFTI1
Elcometer 456 Non-Ferrous Integral	-	A456CNBI1	See separate gauges with N2 PINIP™ Probe	See separate gauges with N2 PINIP™ Probe
Elcometer 456 Dual FNF Integral	A456CFNFEI1	A456CFNFBI1	A456CFNFSI1	A456CFNFTI1

Scale 2		0-5mm (0-200mils) 1µm: 0-1mm; 10µm: 1-5mm (0.1mil: 0-50mils		±1-3% or ±20µm (±1.0mil) nils)
	0	resolution & accuracy on thin coatings Scale 2 ent performance	gauges can be	e switched to the Scale 1 mode

	Model E	Model B	Model S	Model T
Elcometer 456 Ferrous Integral	-	A456CFBI2	See separate gauges with F2 PINIP™ Probe	See separate gauges with F2 PINIP™ Probe

Scale 2	Range:	0-13mm (0-500mils) 1µm: 0-2mm; 10µm: 2-13mm (0.1mil: (	Accuracy:	±1-3% or ±50µm (±2.0mils)
Scale 3	Resolution:	1µm: 0-2mm; 10µm: 2-13mm (0.1mil: 0	)-100mils; 1mil: 100-5	i00mils)

	Model E	Model B	Model S	Model T
Elcometer 456 Ferrous Integral	-	A456CFBI3	See separate gauges with F3 PINIP™ Probe	See separate gauges with F3 PINIP™ Probe

#### Separate Model Options

	Model E	Model B	Model S	Model T
Elcometer 456 Ferrous Separate	-	A456CFBS	A456CFSS	A456CFTS
Elcometer 456 Non-Ferrous Separate	-	A456CNBS	A456CNSS	A456CNTS
Elcometer 456 Dual FNF Separate	-	A456CFNFBS	A456CFNFSS	A456CFNFTS

Probes are supplied separately, see pages 11-13 for details

\*Whichever is the greater

### The Elcometer 456 probe range

Combining over 45 years of probe design and build experience, with the latest materials and technology, the new Elcometer probes are even more accurate, repeatable and reliable than ever before.

Available in a number of designs and scale ranges to meet your specific application, all probes are supplied with an Elcometer test certificate and a set of calibration foils<sup>†</sup>

#### Straight

Measures coatings on both flat and curved surfaces

Right Angle

For taking readings where access is restricted

Mini

Ideal for edges, narrow pipes and small surfaces areas

PINIP

Plug-in probes convert a separate to an integral gauge

Telescopic

Extending right angled probes for out of reach areas

Waterproof

Sealed for use under water at depth, even in diving gloves

High Temperature

For use on hot coated materials up to 250°C (480°F)

Anodiser

Chemical resistant washable probes ideal for the anodising environment

Armoured

Probes with metal reinforced heavy duty cables

Soft Coating

Large surface area probes for soft materials (HVCA approved)

Ferrous probes measure non magnetic coatings on ferro-magnetic substrates. Non-ferrous probes measure non conductive coatings on non-ferrous metal substrates. Dual FNF probes measure both ferrous and non-ferrous applications with automatic substrate detection.

Unless stated, Elcometer separate probes have a maximum operating temperature of 150°C (300°F), PINIP™ probes have a maximum operating temperature of 80°C (176°F).

<sup>†</sup>Foil sets are appropriate to the separate probe's scale range - see page 14 for the foil values supplied in each set

### The Elcometer 456 probe range

Scale 1	U	e: 0-1500μm (0-60mils) Accuracy <sup>*</sup> : ±1-3% or ±2.5μm (± ution: 0.1μm: 0-100μm; 1μm: 100-1500μm (0.01mil: 0-5mils; 0.1mil: 5-60mils)							
Probe Design				Dual Probe FNF	Minimum Headroom		Minimum Sample Diameter <sup>t</sup>		
	Ctroight	T456CF1S	T456CN1S	T456CFNF1S	F, N	85mm (3.35")	F, N, FNF (F)	4mm (0.16")	
CONTRACTOR OF THE OWNER	Straight	1400CF15	1456CN15	1400CFNF15	FNF	88mm (3.46")	FNF (N)	6mm (0.24")	
and shared in sound	Diabt Analo	T456CF1R	T456CN1R	T456CFNF1R	F, N	28mm (1.10")	F, N, FNF (F)	4mm (0.16")	
and the second	Right Angle	1400CF IR	1400CNTR	1400CFINFIR	FNF	38mm (1.50")	FNF (N)	6mm (0.24")	
	Mini M5-90° 45mm (1.77")	T456CFM5R90A	-	-	F	16mm (0.63")	F	4mm (0.16")	
	Anodiser	-	T456CN1AS	-	Ν	100mm (3.94")	Ν	4mm (0.16")	
A STATE OF			TIESONIAD	T456CFNF1P	F	170mm (6.69")	F, N, FNF (F)	4mm (0.16")	
e de la compañía de	PINIP	T456CF1P T	T456CN1P		N, FNF	180mm (7.09")	FNF (N)	6mm (0.24")	

#### Scale 2

 Range:
 0-5mm (0-200mils)
 Accuracy:
 ±1-3% or ±20µm (±1.0mil)

 Resolution:
 1µm: 0-1mm; 10µm: 1-5mm (0.1mil: 0-50mils; 1mil: 50-200mils)

For higher resolution & accuracy on thin coatings Scale 2 ferrous probes can be switched to the Scale 1 mode measurement performance

Probe Design		Ferrous Non-Ferrous Dual Probe F N FNF		Minimum Headroom		Minimum Sample Diameter <sup>t</sup>		
	Straight	T456CF2S	T456CN2S	_	F	89mm (3.50")	F	8mm (0.32")
	Straight	14000120	140001120		Ν	88mm (3.46")	Ν	14mm (0.55")
	Right Angle	T456CF2R	-	-	F	32mm (1.26")	F	8mm (0.32")
	Armoured	T456CF2ARM	-	-	F	138mm (5.43")	F	8mm (0.32")
	Telescopic 56 - 122 cm (22 - 48")	T456CF2T	-	-	F	36mm (1.42")	F	8mm (0.32")
	Soft Coating	T456CF2B	-	-	F	89mm (3.50")	F	8mm (0.32")
	Waterproof 1m (3') cable	T456CF2SW	-	-	F	89mm (3.50")	F	8mm (0.32")
	Waterproof 5m (15') cable	T456CF2SW-5	-	-	F	89mm (3.50")	F	8mm (0.32")
	Waterproof 15m (45') cable	T456CF2SW-15	-	-	F	89mm (3.50")	F	8mm (0.32")
pier and	PINIP	T456CF2P	T456CN2P		F	174mm (6.85")	F	8mm (0.32")
o the second sec		14000727	1400CN2P		Ν	185mm (7.28")	Ν	14mm (0.55")
	Hi-Temperature 250°C (480°F)	T456CF2PHT	-	-	F	174mm (6.85")	F	8mm (0.32")

Scale 3	Range: 0-13n Resolution: 1µm:	nm (0-500mils) 0-2mm; 10µm: :	2-13mm (0.1mil		uracy nil: 10		or ±50µm	(±2.0mils)
Probe Design		Ferrous F	Non-Ferrous N	Dual Probe FNF		/inimum eadroom		m Sample meter <sup>t</sup>
	Straight	T456CF3S	-	-	F	102mm (4.02")	F	14mm (0.55")
	PINIP	T456CF3P	-	-	F	184mm (7.24")	F	14mm (0.55")
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\*Whichever is the greater

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<sup>†</sup> FNF (F): FNF probe in F mode FNF (N): FNF probe in N mode

### The Elcometer 456 probe range

	Range: F: 0-2 Resolution: 10µm	· · ·	s) N: 0-30mm ( n: 2-30mm (1mi	/				m (±4.0mils)
Probe Design		Ferrous F	Non-Ferrous N	Dual Probe FNF		1 inimum eadroom		ım Sample meter <sup>†</sup>
Straight		T456CF6S T456CN6S	_	F	150mm (5.90")	F	51 x 51mm <sup>2</sup> (2 x 2 sq. inch)	
	otraight	14000100	140001000		Ν	160mm (6.30")	Ν	58mm (2.29")
	Armoured	T456CF6ARM	T456CN6ARM		F	190mm (7.48")	F	51 x 51mm <sup>2</sup> (2 x 2 sq. inch)
	Armoured	1430CF0ARIM	1430UN0ARIM	-	Ν	200mm (7.87")	Ν	58mm (2.29")

	ange: 0-500 esolution: 0.1µm	μm (0-20mils) n: 0-100μm; 1μr	n: 100-500µm ((		uracy <sup>*</sup> : s; 0.1n			ו (±0.1mil)
Probe Design		Ferrous F	Non-Ferrous N	Dual Probe FNF		1inimum eadroom		m Sample meter <sup>†</sup>
	Mini M3	T456CFM3A	T456CNM3A	_	F	6mm (0.24")	F	3mm (0.12")
Distant of	45mm (1.77")	140001100			Ν	6mm (0.24")	Ν	4mm (0.16")
	Mini M3-90°		T456CNM3R90A		F	16mm (0.63")	F	3mm (0.12")
	45mm (1.77")	1430CFINI3R90A	1450CNIVI5R90A		Ν	16mm (0.63")	Ν	4mm (0.16")
	Mini M3-45° 45mm (1.77")	T456CFM3R45A	-	-	F	18mm (0.71")	F	3mm (0.12")
	Mini M3-90°	TARCOEMODOOO	T456CNM3R90C		F	16mm (0.63")	F	3mm (0.12")
	150mm (5.90")	1400001000000	1430CINIVISR90C	-	Ν	16mm (0.63")	Ν	4mm (0.16")

#### The Elcometer 456 probe accessories





Jumbo and V-Probe Adaptors, when attached to any Elcometer 456 Scale 1 or Scale 2 straight probes, improve measurement accuracy and repeatability on flat and curved surfaces.

	F and N Probes	Dual FNF Probes
Jumbo Adaptor	T9997766-	T99913225
V-Probe Adaptor	T9997381-	T99913133

The Elcometer probe placement jig is the ideal accessory for measuring coatings not only on small or complex components but also when the highest levels of repeatability and accuracy are required.

Probe Placement Jig - as displayed Each probe placement jig is supplied with a probe housing to suit Scale 1 or Scale 2 straight probes and a component holder.

Additional accessories are also available including:

Component Hand Vice - as displayed	T95013028
Cable Release Assembly - ideal for remote measurements	T95012888
Dual FNF Probe Housing Adaptor	T95015961
Mini Probe Housing Adaptor	T95016896

\*Whichever is the greater

<sup>+</sup> FNF (F): FNF probe in F mode FNF (N): FNF probe in N mode

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T95012880

### Calibration Foils and Coated Standards





Formal quality systems, such as those described in ISO 9000, require that gauges be properly controlled, logged and in calibration. Increasingly, users are specifying that the readings taken by gauges are traceable to National Standards.

There are three types of coating thickness standards available from Elcometer:

- Calibration Foils; supplied individually or in sets, these precision foils (or 'shims'), accurately measured to ±1%, offer you the ideal method for adjusting the calibration of your coating thickness gauge on your substrate, taking into account your specific substrate material, surface finish and form, to ensure the greatest possible accuracy. Foils are available with or without a calibration certificate traceable to National Standards (UKAS and NIST).
- Coated Standards; mounted in a protective folder, these hard wearing coated ferrous or non-ferrous tiles are ideal for accurately measuring the performance of the coating thickness gauge. Coated standards are accurate to within ±2% and supplied with a calibration certificate.
- Zero Test Plates; in some cases, it may be difficult or impractical to obtain an uncoated substrate. For this reason Elcometer provide a range of zero test plates. These test plates, when used in conjunction with a set of foils, are ideal for accurately measuring the performance of your coating thickness gauge.

#### Technical Specifications

Description	Foil Values (µm)	Foil Values (mils)	Un-Certified	Certified
Scale 1 Foil Set; 0-1500µm (0-60mils)	25, 50, 125, 250, 500, 1000	1.0, 2.0, 5.0, 10, 20, 40	T99022255-1	T99022255-1C
Scale 2 Foil Set; 0-5mm (0-200mils)	25, 50, 125, 250, 500, 1000, 2000, 3000	1.0, 2.0, 5.0, 10, 20, 40, 80, 120	T99022255-2	T99022255-2C
Scale 3 Foil Set; 0-13mm (0-500mils)	250, 500, 1000, 2000, 4000, 8000	10, 20, 40, 80, 160, 315	T99022255-3	T99022255-3C
Scale 6 Foil Set; 0-30mm (0-1200mils)	1000, 2000, 5000, 9500, 15mm, 25mm	40, 80, 200, 375, 590, 980	T99022255-6	T99022255-6C
Scale M3 Foil Set; 0-500µm (0-20mils)	12.5, 25, 50, 125, 250, 500	0.5, 1.0, 2.0, 5.0, 10, 20	T99022255-7	T99022255-7C
Scale 2B Foil Set <sup>1</sup> ; 0-5mm (0-200mils)	25, 50, 125, 250, 500, 1000, 2000, 2000	1.0, 2.0, 5.0, 10, 20, 40, 80, 80	T99022255-8	T99022255-8C

Individual foils values are also available - contact your Elcometer distributor or visit our website for more information.

Description	Values	Values	Ferrous	Non-Ferrous
Coated Thickness Standard	0, 40, 75, 125, 175µm	0, 1.6, 3.0, 5.0, 7.0mils	T995111262	T995111271
Coated Thickness Standard	0, 50, 80 ,125, 200µm	0, 2.0, 3.0, 5.0, 8.0mils	T995111263	-
Coated Thickness Standard	0, 50, 150, 250, 500µm	0, 2.0, 6.0, 10, 20mils	T995111261	-
Zero Test Plate ±1%	50.8 x 25.4mm	2.0 x 1.0"	T9994910-	T9994911-
Zero Test Plate ±2%	76.2 x 50.8mm	3.0 x 2.0"	T9999529-	T9999530-
Zero Test Plate - large ±2%	76.2 x 101.6mm	3.0 x 4.0"	T9994054-	T9994055-

<sup>1</sup> The Scale 2B foil sets are designed for the Elcometer 456 soft coating probe and have a larger foil surface area

### How to use a calibration foil



When calibrating a coating thickness gauge using Elcometer calibration foils, place the probe in the centre of the foil, taking care not to rest the probe sleeve or the integral gauge's Bigfoot<sup>™</sup> on the label.

Calibration foils can be carefully stacked in order to increase the thickness range, as shown in the image.

### The Elcometer 456 gauge accessories



The Elcometer 456 has a number of optional accessories, including:

Self Adhesive Screen Protectors (x10)		T99922341
USB Bluetooth Adaptor - for PC's without Bluetooth		T99920130
USB Cable		T99921325
Benchtop Inspection Stand - for Separate Gauges		T45622371
	Integral	Separate
Leather Effect Protective Case	T45621820	T45621821
Plastic Transit Case	T45622342	T45622343

### Calibration certificates

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Every Elcometer 456 gauge and separate probe is supplied with a Test Certificate free of charge.

For separate gauges, the test measurements are generated using factory reference probes.

Each probe Test Certificate is generated using factory reference gauges.

Comprehensive Calibration Certificates, traceable to National Standards (UKAS and NIST) are also available and should be requested at the point of order. Please speak to your Elcometer representative for further information.

### Quality and the environment





Elcometer's commitment to quality is reflected in our ISO 9000 Quality and ISO 14001 Environmental certifications. It is the Company philosophy to integrate quality into all aspects of the product - whether it be in the initial design or in our commitment to our customers.

Elcometer is committed to reducing its impact on the environment, both in product manufacture, packaging, catalogue production and waste management.

All our products are lead and mercury free and, where required CE, FCC, Giteki, C-Tick and RoHS approved.

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