

**NEW**

# Elcometer 130

## Soluble Salt Profiler

elcometer®  
inspection equipment

**Fast & accurate measurement of soluble salts on surfaces - over 4 times faster than other Bresle equivalent test methods.**

● **Complete a Bresle equivalent test in just over two minutes, over 4 times faster than the Bresle method**

● **Multi-point conductivity sensors for accurate display of salt concentration**

● **Fully portable, rugged hand-held design ideal for use in the field**

- Store 3,500 readings in 1,000 batches
- Displays average & peak salt concentration
- 2D & 3D maps display salt profile & pass/fail graphs
- 1 Elcometer 130 SSP test is equivalent to 4 Bresle tests
- Bluetooth® to PC, iOS & Android™ devices



Made for



iPod



iPhone



iPad

**Android™**



available with



Bluetooth®  
wireless technology



compatible with  
**ElcoMaster®**

## Elcometer 130 SSP

## Soluble Salt Profiler

The Elcometer 130 soluble salt profiler provides fast and accurate measurement of the level and density of soluble salts - over 4 times faster than other Bresle equivalent methods.

new

### BRESLE EQUIVALENT ISO 8502-9 TEST METHOD

Stores up to 3,500 sets of readings in 1,000 alpha numeric batches

Automatic temperature compensation ensures accurate results

Multi-point conductivity sensor allows the trend in conductivity to be displayed as a density map

Large colour LCD screen displays readings in  $\mu\text{g}/\text{cm}^2$ , ppm,  $\mu\text{S}/\text{cm}$ , mS/cm, % salinity or  $\text{mg}/\text{m}^2$

Non-oxidising gold plated contacts ensure lifetime performance

Range of measurement modes:

- Cleanliness
- Bresle Method Equivalency
- Elcometer 130 Equivalency
- Conductivity

#### STANDARDS:

SSPC Guide 15, NSI 009-32

Made for

iPod iPhone iPad

Android™

Suitable for use in Cloud Computing

available with Bluetooth® wireless technology

2 YEAR\* WARRANTY

compatible with ElcoMaster®

Elcometer 130 SSP: Made for iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, iPad Air 2, iPad mini 3, iPad Air, iPad mini 2, iPad (3rd and 4th generation), iPad mini, iPad 2, and iPod touch (5th generation). "Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.



## Soluble Salt Profiler

## Elcometer 130 SSP

### ***“Four Bresle equivalent readings in 2½ minutes”***

Each filter paper is the size of four Bresle patches - the Elcometer 130 Soluble Salt Profiler not only displays the individual reading, but also provides four Bresle equivalent readings in just over two minutes.

### ***“The new Elcometer 130 SSP doesn’t just measure the level of soluble salts”***

In addition to soluble salt levels (cleanliness) or conductivity, the Elcometer 130 SSP carries out a detailed analysis of the test area - providing an accurate salt density profile map, pinpointing areas of high contamination outside user defined limits.

### ***“Accurate in all environments”***

This new, easy to use, Elcometer 130 SSP has automatic temperature compensation ensuring accuracy in all climatic conditions. Impure water can be offset for accurate and repeatable readings.

### ***“Each gauge is designed to last”***

Robust, durable & water resistant, the new Elcometer 130 SSP is available with a 2 year manufacturer’s warranty; giving you peace of mind.

### ***“Generate instant reports on your PC, Android™ or iOS mobile device”***

The Elcometer 130 SSP wirelessly transmits readings, statistics and batches via Bluetooth® or via USB straight into an inspection application or into ElcoMaster®, Elcometer’s Mobile App, for instant report generation at your desk or, using your mobile, in the field.

### ***“Calibration verification - peace of mind”***

A Calibration Verification Tile is available for verifying the accuracy of the gauge whilst out in the field and the verification date is recorded for use in reports.



Large Single Reading



Four Bresle Patch Equivalent Readings



Pass/Fail to User Defined Limits



2D Salt Density Map with High/Low Readings



3D Salt Density Profile & Peak Salt Concentration (Hi)



Calibration Verification Tile available for verifying the accuracy of the gauge

## Elcometer 130 SSP

## Soluble Salt Profiler

### How to use the Elcometer 130 Soluble Salt Profiler



1. Wearing clean disposable gloves (supplied), fill a syringe with precisely 1.6ml of pure distilled water.



2. Using tweezers, remove a filter paper from the pack and place it on the cleaned, non-labelled side of the magnetic disc supplied.



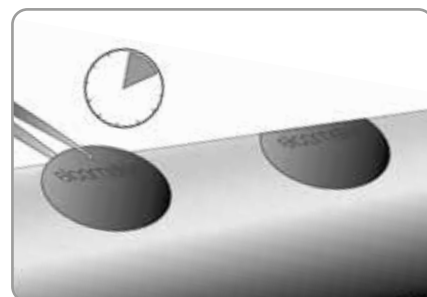
3. Disperse the water from the syringe, evenly across the whole of the filter paper and remove any bubbles from under the paper.



4. Place the magnetic disc, with wetted paper face down on to the area under test, pressing firmly into any contours or irregularities and start the 2 minute timer on the gauge.



5. After two minutes, carefully remove the filter paper and magnetic disc from the test surface and place on to the measurement electrodes.



6. As each filter paper remains on the surface for two minutes, multiple tests can be undertaken at the same time, reducing inspection times further.



7. Close the lid, ensuring that the magnetic catch is fully engaged, the gauge will begin measuring.



8. The reading will be displayed on screen in the chosen display mode.



9. Place the filter paper in a resealable bag (supplied), if required for further analysis.

## Soluble Salt Profiler

## Elcometer 130 SSP

### Bresle Patch Equivalence

Tested under laboratory conditions in accordance with ISO 8502-9, the Elcometer 130 SSP provides equivalent measurements to the Bresle Patch Method.

To show equivalency of measurement between the Bresle Method and the Elcometer 130 SSP it is essential that all parameters are identical except the gauges under test.

For equivalency to be established, both gauges should read a similar value, taking into account the accuracy and resolution of each test.

#### TEST METHOD

Working with the School of Materials at the University of Manchester (UK) an automated, repeatable and reproducible doping method was developed to apply a known salt concentration uniformly over a large panel.

Over 200 individual tests were undertaken across a range of concentrations and blast profiles.

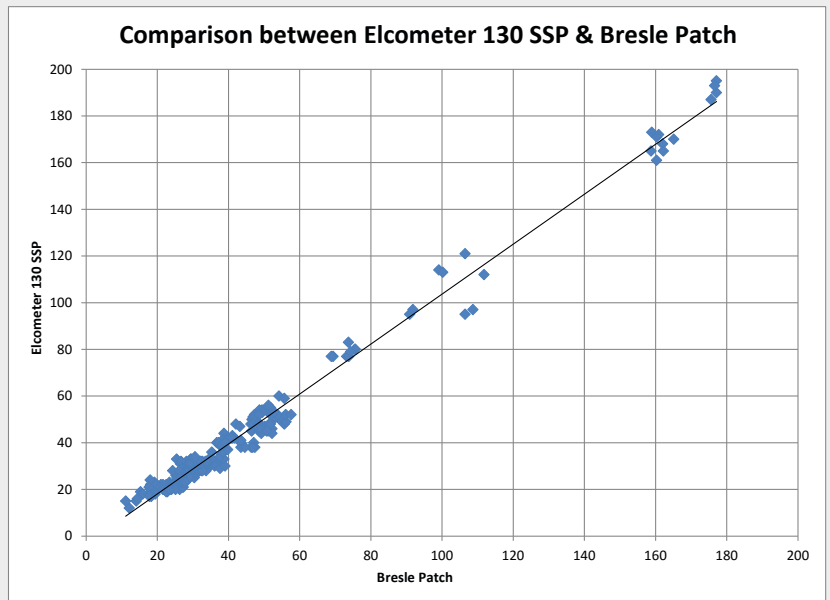
#### Nominal steel grit blast profiles

- Smooth <25µm (1.0mils)
- 25 to 50µm (1.0 to 2.0mils)
- 50 to 75µm (2.0 to 3.0mils)
- 75 to 150µm (3.0 to 6.0mils)

#### Surface salt concentration levels

- 15mg/m<sup>2</sup> to 25mg/m<sup>2</sup>
- 25mg/m<sup>2</sup> to 35mg/m<sup>2</sup>
- 35mg/m<sup>2</sup> to 45mg/m<sup>2</sup>
- 45mg/m<sup>2</sup> to 55mg/m<sup>2</sup>
- >55 mg/m<sup>2</sup>

Testing was undertaken under strict laboratory conditions, with each method tested in accordance with the manufacturer's instructions.



#### RESULTS

***“The Elcometer 130 SSP measurement equivalency is less than 0.46µg/cm<sup>2</sup> across all concentrations on smooth and blasted substrates, almost half the background contamination of a Bresle Patch.”***

The Elcometer 130 SSP has undergone extensive side by side comparison testing against the Bresle Test Patch Method.

Background (inherent) contamination within the Bresle Test Patch has shown that the Bresle Test Patch has a background contamination range of 0.88µg/cm<sup>2</sup> (8.8mg/m<sup>2</sup>).

The variation in readings between the Elcometer 130 SSP and the Bresle Test method are significantly within the background contamination range of the Bresle Patches (0.88µg/cm<sup>2</sup>); being less than 0.41µg/cm<sup>2</sup> for concentrations below 8.0µg/cm<sup>2</sup>, and less than 0.46µg/cm<sup>2</sup> across concentrations below 16.5µg/cm<sup>2</sup>.

For a copy of the full report and analysis visit [www.elcometer.com](http://www.elcometer.com)



## Elcometer 130 SSP

## Soluble Salt Profiler

Create instant reports with ElcoMaster®

What you do with the collected data is just as important as taking the readings themselves.



ElcoMaster® is a fast, easy to use software solution for all your data management and quality assurance needs, preparing professional inspection reports at the click of a button.

Data transferred to ElcoMaster® includes:

- Date and time stamped readings
- Statistical values
- Limit values
- Readings above high limit
- Run charts & histograms
- Salt profile maps
- Batch and gauge information
- Calibration information

Whether you are in the field or on the factory floor, using the ElcoMaster® Mobile App users can;

- Store live readings directly on to a mobile device and save them into batches
- View graphs in real-time whilst carrying out the inspection
- Add notes to individual batch reading
- Add photographs of the test surface to each individual batch reading at the click of a button
- Plot individual readings on to a location map, photograph or diagram via the mobile device's internal GPS
- Inspection data can be transferred from mobile to PC for further analysis and reporting
- Generate instant .pdf<sup>1</sup> report for submission

### Connect

Connect gauge via Bluetooth® to see live readings directly on the phone and save them into batches.

### Review

Review average, maximum and minimum readings instantly.

### Manage & Print

Store all data; surface cleanliness, surface profile, climate and manual reports in easy to manage folders.

### Photos & Notes

Add photos, notes and comments.

### Image Collection

Use measurement location points on images to indicate the position for the next reading.

### Combine

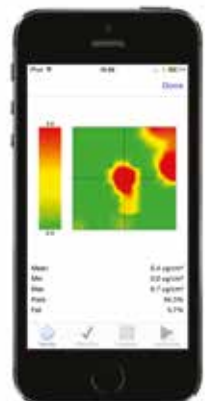
Combine different inspection parameters (such as salt contamination, surface profile, climate, dry film thickness) together with images, notes and other project specific information into reports.

### Collaborate

Share inspection data securely via the Cloud and collaborate on projects using the instant messaging feature in ElcoMaster®.

### Send

Email inspection data from a mobile device to a PC for further analysis and reporting or transfer data via the Cloud.




<sup>1</sup>Available on iOS devices

## Soluble Salt Profiler

## Elcometer 130 SSP

### Technical Specification

			Model SSP
Repeatable & reproducible measurements			■
Easy to use menu structure; <i>in 30+ languages</i>			■
Tough, impact, waterproof & dust resistant; <i>equivalent to IP64</i>			■
Bright colour screen; <i>with permanent back light</i>			■
Scratch & solvent resistant display; <i>2.4" (6cm) TFT</i>			■
2 year gauge warranty*			■
USB power supply; <i>via PC</i>			■
Calibration certificate			■
Calibration verification mode <i>(with optional certified calibration tile)</i>			■
Ambient light sensor; <i>with adjustable auto brightness</i>			■
Emergency light mode			■
Magnetic & tripod mounting points			■
Data output, USB to PC & Bluetooth to PC, Android™ & iOS+ devices			■
On screen statistics			
Number of readings ( <i>n</i> ); Mean/Average, ( $\bar{x}$ ); Standard deviation ( $\sigma$ );			
Highest reading/Peak salt concentration ( <i>Hi</i> ); Lowest reading ( <i>Lo</i> );			■
Coefficient of variation ( <i>CV%</i> ); Number of readings above high limit (  )			
Gauge memory			
Number of individual reading sets; <i>including salt density, pass/fail map &amp; distribution graph</i>			3,500
Number of batches			1,000
Measurement units & range			
Surface Cleanliness - Elcometer 130 Mode	0-50µg/cm <sup>2</sup>		0-500mg/m <sup>2</sup>
Surface Cleanliness - Bresle Equivalent Method Mode	0-15µg/cm <sup>2</sup>		0-150mg/m <sup>2</sup>
Conductivity	0-6000µS/cm		0-6mS/cm
	0-3000ppm		0-0.3% Salinity
Resolution			
Surface Cleanliness	0.1µg/cm <sup>2</sup>		1mg/m <sup>2</sup>
Conductivity	1µS/cm		0.001mS/cm
	1ppm		0.0001% Salinity
Gauge Accuracy			±1% of reading
Measurement mode			
Surface Cleanliness			■
Conductivity			■
Calibration offset mode			■
Automatic temperature compensation			■
ElcoMaster® software & USB cable			■
Individual reading and profile map stored with time and date			■
Plastic transit case			■
Alpha-numeric batch names; <i>user definable on the gauge</i>			■
Fixed batch size mode; <i>with batch linking</i>			■
Delete last reading			■
Limits; <i>(gauge &amp; batch specific)</i>			■
Review, copy, clear & delete batches & calibration settings			■
Trend graph; <i>last 20 readings</i>			■
Batch review graph			■
Analogue bar graph			■

\* The Elcometer 130 SSP is supplied with a one year warranty against manufacturing defects. Gauge warranty can be extended to two years via [www.elcometer.com](http://www.elcometer.com).

\* Visit [www.elcometer.com/sdk](http://www.elcometer.com/sdk) to find out how to integrate Elcometer's MFi certified products to your App.

## Technical Specification



Model	Description	Certificate
<b>E130-SP</b>	Elcometer 130 Soluble Salt Profiler	
<b>E130-SPC</b>	Elcometer 130 Certified Soluble Salt Profiler	●
Operating Range	5°C - 40°C (41°F - 104°F)	
Power Supply	4 x AA batteries or via USB (rechargeable batteries can also be used)	
Battery Life	Alkaline: Approximately 30 hours Lithium: Approximately 45 hours	
Sample Time	2 minutes	
Sampling Size	110mm (4.3") circle	
Dimensions	250 x 145 x 50mm (9.8 x 5.7 x 1.9")	
Weight	780g (1.72lb)	
Standards	<b>SSPC Guide 15 (Bresle Equivalent ISO 8502-9 Test Method)</b>	
Packing List	Elcometer 130 Soluble Salt Profiler, 3 x magnetic discs, 100 x high purity test papers, 250ml (8.5fl oz) pure distilled water, 20 x PVC storage bags, disposable gloves, sensor wipes, 3 x 3.0ml (0.1fl oz) syringes, 2 x plastic tweezers, 4 x AA batteries, shoulder strap, plastic transit case, test certificate and operating instructions, USB cable, ElcoMaster® software	

## Accessories

Certificate

<b>T13027115</b>	Calibration Verification Tile	●
<b>T13025964</b>	Magnetic Discs (x3)	
<b>T13024091</b>	3.0ml / 0.1fl oz Syringe (x3)	
<b>T13024093</b>	Self Seal Polythene Bags (x20)	
<b>T99911344</b>	Pure Distilled Water - 250ml (8.5fl oz) Bottle with 3ml syringe	
<b>T13027596</b>	Pure Distilled Water - 1000ml (33.8fl oz) Bottle with 3ml syringe	
<b>T13024094</b>	High Purity Test Papers (x100)	
<b>T13024092</b>	Disposable Vinyl Gloves (x20)	
<b>T13024098</b>	Plastic Tweezers (x2)	
<b>T13024087</b>	Box of 72 Sensor Wipes	
<b>T99920130</b>	USB Bluetooth® Adaptor V2.1+	

● Calibration certificate supplied as standard

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www.elcometer.com

Elcometer 130 SSP: Made for iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, iPhone 4, iPad Air 2, iPad mini 3, iPad Air, iPad mini 2, iPad (3rd and 4th generation), iPad mini, iPad 2, and iPod touch (5th generation). "Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

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