

**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



Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижегород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<https://elcometer.nt-rt.ru/> || [erj@nt-rt.ru](mailto:erj@nt-rt.ru)

## 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™

available with  
Bluetooth®  
wireless technology

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.



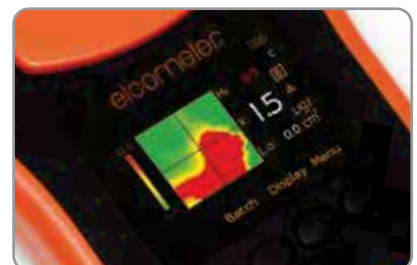
Large Single Reading



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.



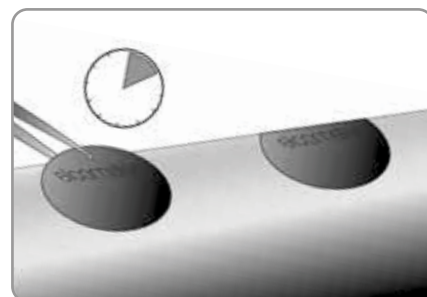
3. Disperse the water from the syringe, evenly across the whole of the filter paper and remove any bubbles from under the paper.



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.

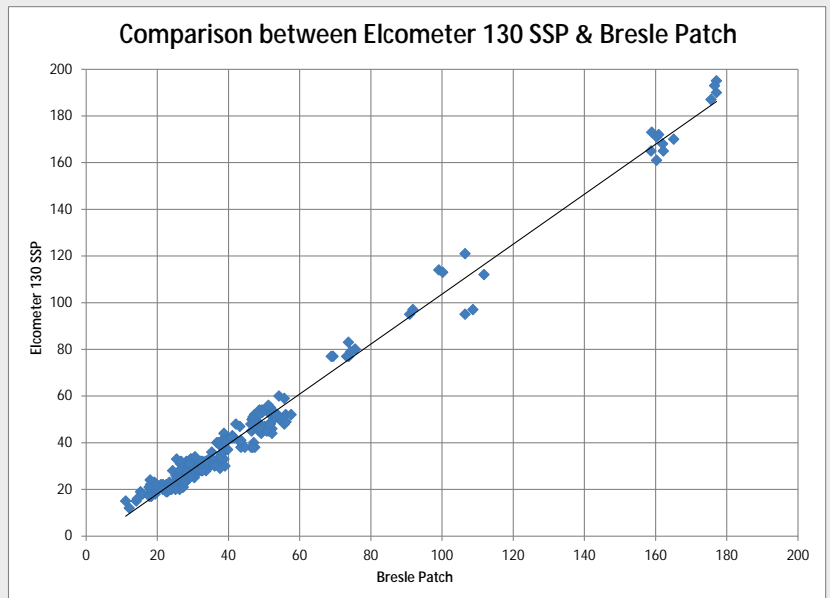
#### Nominal steel grit blast profiles

- 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

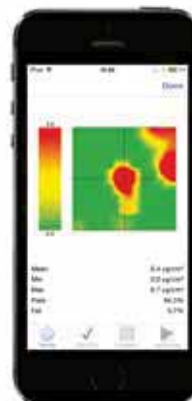
Combine different inspection parameters (such as salt contamination, surface profile, climate, dry film thickness) together with images, notes and other project specific information into reports.

### 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 <sup>1</sup>   |             |
| <b>E130-SPC</b> | Elcometer 130 Certified Soluble Salt Profiler <sup>1</sup>   | ●           |
| Operating Range | 5°C - 40°C (41°F - 104°F)  |             |
| Power Supply    | 4 x AA batteries or via USB<br>(rechargeable batteries can also be used)   |             |
| Battery Life    | Alkaline: Approximately 30 hours<br>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 <sup>1</sup> Applicable Patents: GB 2527766

elcometer®  
inspection equipment



Elcometer 130  
Salt Contamination Meter

## Surface Preparation - Cleanliness

### Elcometer 130

### Salt Contamination Meter

The **Elcometer 130** quickly and accurately measures the level of soluble salts on surfaces over 4 times faster than Bresle equivalent test methods.

Non-oxidising gold plated contacts ensures lifetime accuracy

Fast reading rate allows multiple tests to be completed efficiently

Pressure plate ensures a constant and uniform pressure to paper

Automatic temperature compensation ensures accurate results

Stores up to 100,000 readings in 1,000 alpha numeric batches

Dust and water resistant rugged design equivalent to IP64

**STANDARDS:**  
SSPC Guide 15



Measures on flat and convex surfaces

**2 YEAR\***  
WARRANTY



## Elcometer 130

## Salt Contamination Meter

### User Friendly

- Large buttons ideal for gloved hands
- Easy to use menus in multiple languages
- High reading limit indicator
- Factory calibrated for immediate use

### Accurate

- Conductivity measurement to  $\pm 1\%$
- Can be used in accordance with National and International Standards
- Automatic temperature compensation ensures repeatable, accurate results
- Calibration verification tiles
- Trend and batch readings graph formats for instant on screen analysis

### Reliable

- Repeatable and reproducible measurements
- 2 year gauge warranty\*
- Supplied with fully traceable Test Certificates
- Batch & individual readings are stored with date and time stamp

### Tough

- Heavy duty, impact resistant, dust and waterproof design equivalent to IP64
- Wipe clean sealed unit ideal for harsh environments
- Scratch and solvent resistant display

### Efficient

- Instant readings allows multiple tests to be completed efficiently
- Alpha numeric batch identification
- Compatible with ElcoMaster® software and ElcoMaster® Mobile App
- Calibration offset allows the use of non-pure water up to  $2\mu\text{g}/\text{cm}^2$

### Powerful

- Measuring range up to  $50\mu\text{g}/\text{cm}^2$  (3000ppm)
- USB and Bluetooth® data output to iPhone<sup>1</sup> or Android™ devices
- Stores up to 100,000 readings in 1,000 batches
- Soluble salt and conductivity meter in one gauge



\* The Elcometer 130 is supplied with a 1 year warranty against manufacturing defects. The warranty

<sup>1</sup>Compatible with iPod, iPhone and iPad.

## Elcometer 130

## Salt Contamination Meter

| Product Features   |  | ■ Standard | □ Optional  |
|--|--|------------|---|
|  |  | Model S    | Model T   |
| 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 backlight</i>  |  | ■          | ■   |
| Scratch & solvent resistant display; <i>2.4" (6cm) TFT</i>   |  | ■          | ■   |
| 2 year gauge warranty <sup>1</sup>   |  | ■          | ■   |
| USB power supply; <i>via PC</i>  |  | ■          | ■   |
| Calibration certificate  |  | ■          | ■   |
| Calibration Verification Mode <i>(with optional certified calibration tiles)</i>                     |  | ■          | ■   |
| Ambient light sensor; <i>with adjustable auto brightness</i>   |  | ■          | ■   |
| Emergency Light Mode   |  | ■          | ■   |
| Magnetic & tripod mounting points  |  | ■          | ■   |
| Gauge software updates; <i>via ElcoMaster® software</i>  |  | ■          | ■   |
| Data output  |  |            |   |
| USB; <i>to computer</i>  |  | ■          | ■   |
| Bluetooth®; <i>to computer, Android™ &amp; iOS<sup>2</sup> devices</i>                               |  |            | ■   |
| ElcoMaster® software & USB cable   |  | □          | ■   |
| On screen statistics   |  |            | ■   |
| Number of readings ( <i>n</i> ); Mean (average) ( $\bar{x}$ ); Standard deviation ( $\sigma$ );      |  |            |   |
| Highest reading ( <i>Hi</i> ); Lowest reading ( <i>Lo</i> ); Coefficient of variation( <i>CV%</i> ); |  |            | ■   |
| Number of readings above high limit ( $\frac{n}{n}$ )  |  |            |   |
| Gauge memory   |  |            | ■   |
| Number of readings   |  |            | 100,000   |
| Number of batches  |  |            | 1,000   |
| Measurement units & range  | µg/cm <sup>2</sup><br>ppm<br>µS/cm<br>mS/cm<br>% Salinity<br>mg/m <sup>2</sup> | 0-25       | 0-50<br>0-3000<br>0-6000<br>0-6<br>0-0.3<br>0-500 |
| Measurement mode   |  |            |   |
| Surface cleanliness  |  | ■          | ■   |
| Conductivity   |  |            | ■   |
| Calibration Offset Mode  |  | ■          | ■   |
| Automatic temperature compensation   |  | ■          | ■   |
| Individual reading stored with date & time   |  |            | ■   |
| 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>user definable audible &amp; visual pass/fail warnings</i>                                |  |            | ■   |
| Review, copy, clear & delete batches & calibration settings  |  |            | ■   |
| Trend graph; <i>last 20 readings</i>   |  |            | ■   |
| Batch review graph   |  |            | ■   |
| Analogue bar graph   |  |            | ■   |

**Elcometer 130****Salt Contamination Meter****Technical Specification**

| Model S              | Model T  | Description                                      | Certificate   |
|----------------------|--|--|---|
| E130-S               | E130-T   | Elcometer 130 Salt Contamination Meter           |   |
| E130-SC              | E130-TC  | Elcometer 130 Certified Salt Contamination Meter |   |
|                      |  | Model S  | Model T   |
| Measurement Range    |  | 0-25µg/cm²                                       | 0-50µg/cm²; 0-500mg/m²; 0-6000µS/cm; 0-6mS/cm; 0-3000ppm; 0-0.3% Salinity |
| Resolution           |  | 0.1µg/cm²  | 0.1µg/cm²; 1mg/m²<br>1µS/cm; 0.001mS/cm<br>1ppm; 0.0001% Salinity         |
| Measurement Accuracy | ±1% of reading ±0.1µg/cm²  | Operating Range                                  | 5°C - 40°C (41°F - 104°F)   |
| Power Supply         | 4 x AA batteries (rechargeable batteries can also be used), or power via USB   |  |   |
| Number of Tests      | Approximately 4,000 measurements before battery replacement  |  |   |
| Sample Time          | 2 minutes  | Sampling Size                                    | 110mm (4.3") diameter circle  |
| Dimensions           | 250 x 145 x 50mm (9.8 x 5.7 x 1.9")  | Weight   | 780g (1.72lb)   |
| Packing List         | Elcometer 130 Salt Contamination Meter, 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 3ml (0.1fl oz) syringes, 2 x plastic tweezers, 4 x AA batteries, shoulder strap, plastic transit case, test certificate and operating instructions, USB cable (T), ElcoMaster® software (T) |  |   |

**Accessories**

|           |   | Certificate |
|-----------|---|-------------|
| T13023980 | Calibration Verification Tiles, Set of 3                          | ●           |
| T13024091 | 3ml / 0.1fl oz Syringe (x3)                                       |             |
| T99922341 | Pack of 10 Display Screen Protectors                              |             |
| T13024093 | Box of 20 Self Seal Polythene Bags                                |             |
| T99911344 | Pure Distilled Water - 250ml (8.5fl oz) Bottle with 3ml syringe   |             |
| T13027596 | Pure Distilled Water - 1000ml (33.8fl oz) Bottle with 3ml syringe |             |
| T13024094 | Box of 100 High Purity Test Papers                                |             |
| T13024092 | Box of 20 Disposable Vinyl Gloves                                 |             |
| T13024098 | Plastic Tweezers (x2)   |             |
| T13024087 | Box of 72 Sensor Wipes  |             |
| T13025964 | Magnetic Discs (x3)   |             |
| T99921325 | USB Cable   |             |



## Elcometer 138 Bresle Salt Kit

It is essential that the level of contaminants on a surface is measured prior to application of the coating to ensure the quality of the coating and that its optimum lifetime is achieved.

If the coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly re-coating and high maintenance costs.

The Elcometer 138 Bresle Kits include the Elcometer 138 Bresle Salt Meter. This lightweight, portable meter measures the conductivity of the test sample using a single drop, then automatically converts this to show the density of salts, negating the need for the user to do a manual calculation when working in accordance with ISO 8502-6 or ISO 8502-9.



**E138-1C** - Elcometer 138 Bresle Salt Kit featuring the NEW Elcometer 135C Bresle Test Patches



**E138-1** - Elcometer 138 Bresle Salt Kit with the ORIGINAL Elcometer 135B Bresle Test Patches

### STANDARDS:

AS 3894.6-A, IMO MSC.215 (82), IMO MSC.244 (83),  
 ISO 8502-6, ISO 8502-9, SSPC Guide 15,  
 US Navy NSI 009-32, US Navy PPI 63101-000

### Technical Specification

| Part Number       | Description  | Certificate            |
|-------------------|--|------------------------|
| <b>E138-1C</b>    | Elcometer 138 Bresle Salt Kit with Elcometer 138 Bresle Salt Meter and Elcometer 135C Bresle Test Patches  | •                      |
| <b>E138-1C-CM</b> | Elcometer 138 Bresle Salt Kit with Elcometer 138 Conductivity Meter and Elcometer 135C Bresle Test Patches   | •                      |
| <b>E138-1</b>     | Elcometer 138 Bresle Salt Kit with Elcometer 138 Bresle Salt Meter and Elcometer 135B Bresle Patches   |                        |
| <b>E138-1-CM</b>  | Elcometer 138 Bresle Salt Kit with Elcometer 138 Conductivity Meter and Elcometer 135B Bresle Patches  |                        |
| Measurement Range | E138-1, E138-1C: ISO Mode: 0 - 2399µg/cm <sup>2</sup> IMO Mode : 0 - 2199µg/cm <sup>2</sup><br>E138-1-CM, E138-1C-CM: 0 - 19.99mS/cm   |                        |
| Accuracy*         | ±2% full scale (for each range)  |                        |
| Dimensions        | 393 x 331 x 95mm (15.5 x 13 x 3.7")  | Weight 1.4kg (3lb 1oz) |
| Packing List      | Box of 25 Elcometer 135C Bresle Test Patches (E138-1C) or Elcometer 135B Bresle Patches (E138-1), Elcometer 138 Bresle Salt Meter (E138-1C or E138-1) or Elcometer 138 Conductivity Meter (E138-1-CM or E138-1C-CM) & Sensor, 250ml (8.45fl oz) bottle of standard 84µS/cm calibration solution with certificate, 14ml (0.47fl oz) bottle of conditioning solution, 250ml (8.5fl oz) bottle of pure water, 3 x 5ml (0.17fl oz) syringes, 3 x blunt needles, 30ml (1fl oz) plastic beaker, 2 x CR2032 batteries (supplied fitted to the Elcometer 138), transit case and user guide |                        |

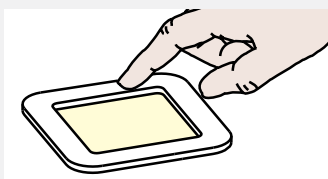
\* See Elcometer 138 Bresle Salt Meter for full specification  
 \* See Elcometer 138 Conductivity Meter for full specification

## Elcometer 138 Bresle Salt Kit

### Accessories

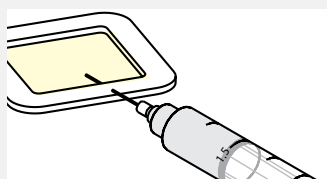
|              |  |
|--------------|--|
| E135----C25  | Elcometer 135C Bresle Test Patch (Box of 25)   |
| E135----C100 | Elcometer 135C Bresle Test Patch (Box of 100)  |
| E135----B    | Bresle Patches (Box of 25)   |
| T13830629-1  | Standard 84µS/cm Calibration Solution, 250ml (8.45fl oz) Bottle                                  |
| T13830629-2  | Standard 1413µS/cm Calibration Solution, 250ml (8.45fl oz) Bottle                                |
| T13827352-1  | Standard 447 µS/cm (0.447 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches  |
| T13827352-2  | Standard 1413 µS/cm (1.413 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches |
| T13827352-3  | Standard 15000 µS/cm (15 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches   |
| T13827259    | Pure Water 250ml (8.5fl oz) Bottle   |
| T13818517    | 3 x 5ml (0.17fl oz) Syringes   |
| T13818518    | 3 x Needles  |
| T13818519    | Plastic Beaker 30ml (1fl oz)   |
| E138-BSM     | Elcometer 138 Bresle Salt Meter  |
| E138-CM      | Elcometer 138 Conductivity Meter   |
| T13823928    | Replacement Sensor for Bresle Salt Meter and Conductivity Meter                                  |

### Measuring salt contamination using the Bresle method in accordance with ISO 8502-6/ISO 8502-9



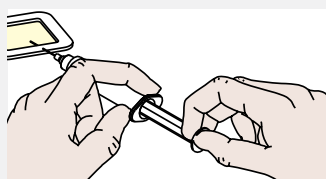
Remove protective backing and foam centre from the patch.

Apply the patch to surface and press firmly around perimeter to achieve a complete seal - ensuring that a minimum amount of air is trapped within the test compartment.

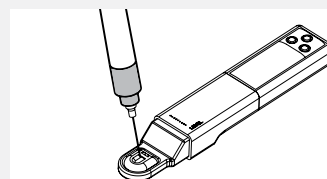


Fill the syringe with 3.0ml of pure water. Insert the syringe into the patch through its foam perimeter, at a 30° angle, so that it passes through the foam into the test compartment.

Inject the water into the test compartment. If necessary remove the remaining air within the compartment.



During an agreed period of time, without removing the needle - withdraw and re-inject the solution back into the patch, at least four times.



At the end of the period extract as much solution as possible.

Remove the syringe from the patch and measure the conductivity of the solution using a suitable Conductivity Meter such as the Elcometer 138.

NEW

# Elcometer 135C Bresle Test Patch

elcometer®  
inspection equipment

Determines the level of **soluble salts on uncoated surfaces** using the **patch method** in accordance with **ISO 8502-6**

- Easy to remove after test, leaving no foam - ideal for use in the field

- Self adhesive rubber film patches with thick foam surround, easy to insert needle

- Supplied with Certificate of Cleanliness for peace of mind





## Elcometer 135C

## Elcometer Bresle Test Patch

The Elcometer 135C Bresle Test Patch determines the concentration of soluble salts on uncoated surfaces in accordance with the ISO 8502-6 test method.

### STANDARDS:

ISO 8502-6, ISO 8502-9\*

Available in boxes of 25 & 100

19% thicker foam walls than traditional patches - easier to insert a needle

Easy to peel off after test, leaving no foam on the substrate

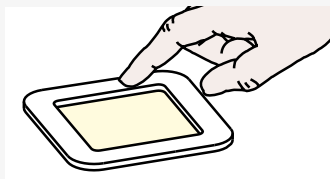
Easy to remove clear protective film

Sealed compartment with clear flexible membrane for sampling soluble impurities

Covers on both sides to protect against dust and contaminants

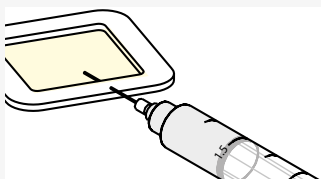
Supplied with a Certificate of Cleanliness & Test Area

### Measuring salt contamination using the Bresle method in accordance with ISO 8502-6/ISO 8502-9



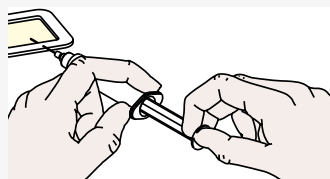
Remove protective backing and foam centre from the patch.

Apply the patch to surface and press firmly around perimeter to achieve a complete seal - ensuring that a minimum amount of air is trapped within the test compartment.

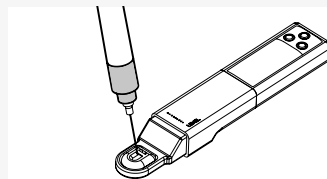


Fill the syringe with 3.0ml of pure water. Insert the syringe into the patch through its foam perimeter, at a 30° angle, so that it passes through the foam into the test compartment.

Inject the water into the test compartment. If necessary remove the remaining air within the compartment.



During an agreed period of time, without removing the needle - withdraw and re-inject the solution back into the patch, at least four times.



At the end of the period extract as much solution as possible.

Remove the syringe from the patch and measure the conductivity of the solution using a suitable Conductivity Meter such as the Elcometer 138.

\* When used in conjunction with an Elcometer 138 Conductivity Meter

## Elcometer Bresle Test Patch

## Elcometer 135C

### “No foam residue”



Elcometer 135C Bresle Test Patches are easy to peel off after a test, leaving no foam on the substrate, causing less damage as no need to scrape off residue.

### “Easy to insert the syringe”



The new Elcometer 135C Bresle Test Patches have a thicker foam surround compared to traditional patches, allowing easier insertion of the syringe.

### “Water-tight seal”



Robust & durable the new Elcometer 135C patches use a high quality adhesive, ensuring a water-tight seal during test.

### “Certified for peace of mind”



The Elcometer 135C Bresle Test Patches are available with a Batch Certificate of Cleanliness & Test Area in accordance with ISO 8502-6.

### Technical Specification



| Part Number   | Description   | Certificate* |
|---------------|---|--------------|
| E135----C25   | Elcometer 135C Bresle Test Patch (Box of 25)              | •            |
| E135----C100  | Elcometer 135C Bresle Test Patch (Box of 100)             | •            |
| Test Area     | 1250mm <sup>2</sup> , 12.5cm <sup>2</sup> (1.93sq inches) |              |
| Sample Volume | 2.6ml ± 0.6ml   |              |
| Dimensions    | 50 x 50mm (1.97 x 1.97")                                  |              |

### Accessories

|           |  |
|-----------|--|
| T13823925 | Elcometer 138 Conductivity Meter   |
| T13827259 | Pure Water, 250ml (8.5fl oz) Bottle  |
| T13823926 | Standard 1.41 mS/cm (1410 µS/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles |
| T13818517 | 3 x 5ml (0.17fl oz) Syringes   |
| T13818518 | 3 x Needles  |
| T13818519 | Plastic Beaker, 30ml (1fl oz)  |

\*Elcometer 135C Bresle Test Patches are available with your lot, contact your Elcometer representative for more information.

## Elcometer 138

## Bresle Salt Kit



It is essential that the level of contaminants on a surface is measured prior to application of the coating to ensure the quality of the coating and that its optimum lifetime is achieved.

If the coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly re-coating and high maintenance costs.

The Elcometer 138 Bresle Kit includes the Elcometer 138 Conductivity Meter. This lightweight, portable conductivity meter accurately measures the salinity of the test samples.

The sensor cartridge can be easily replaced when necessary and displays conductivity in a range of units including: S/cm, S/m, ppm and % salinity.

### STANDARDS:

AS 3894.6-A, IMO MSC.215 (82),  
IMO MSC.244 (83), ISO 8502-6,  
ISO 8502-9, SSPC Guide 15,  
US Navy NSI 009-32,  
US Navy PPI 63101-000

### Technical Specification

C

| Part Number       | Description   | Certificate |                        |
|-------------------|---|-------------|------------------------|
| <b>E138-1C</b>    | Elcometer 138 Bresle Salt Kit with Elcometer 135C Bresle Test Patches   | ●           |                        |
| Measurement Range | 0 mS/cm to 19.9 mS/cm and 0 S/m to 1.99 S/m   | Accuracy*   | 2% full scale ±1 digit |
| Dimensions        | 346 x 292 x 84mm (13.6 x 11.5 x 3.3")   | Weight      | 1.1kg (2lb 7oz)        |
| Packing List      | Box of 25 Elcometer 135C Bresle Test Patches, Elcometer 138 Conductivity Meter & Sensor, 14ml (0.47fl oz) bottle of standard 1.41 mS/cm calibration solution, 14ml (0.47fl oz) bottle of moistening solution, 250ml (8.5fl oz) bottle of pure water, 3 x 5ml (0.17fl oz) syringes, 3 x blunt needles, 30ml (1fl oz) plastic beaker, 2 x CR2032 batteries, transit case and user guide |             |                        |

## Elcometer 138B

## Basic Bresle Salt Kit



If a coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly re-coating and high maintenance costs.

Therefore it is essential to measure the level of contaminants on a surface prior to coating application to ensure the quality of the coating and that its optimum lifetime is achieved.

The Elcometer 138 Basic Bresle Kit includes the Elcometer 135C Bresle Test Patches and the Elcometer 138E Conductivity Meter. This lightweight, portable conductivity meter accurately measures the salinity of the test samples.

The sensor cartridge can be easily replaced when necessary and displays conductivity in a range of units including: S/cm & S/m.

### STANDARDS:

AS 3894.6-A, IMO MSC.215 (82),  
IMO MSC.244 (83), ISO 8502-6,  
ISO 8502-9, SSPC Guide 15,  
US Navy NSI 009-32,  
US Navy PPI 63101-000

### Technical Specification

C

| Part Number       | Description  | Certificate           |
|-------------------|--|-----------------------|
| E138-EC           | Elcometer 138 Basic Bresle Salt Kit with Elcometer 135C Bresle Test Patches  | ●                     |
| Measurement Range | 0 µS/cm to 200.0 µS/cm, 0 µS/cm to 2000 µS/cm, 0 mS/cm to 20.00 mS/cm  |                       |
| Accuracy#         | ± 1% of full scale   |                       |
| Dimensions        | 307 x 260 x 74mm (12.1 x 10.2 x 2.9")  | Weight 952g (2lb 1oz) |
| Packing List      | Box of 25 Elcometer 135C Bresle Test Patches, Elcometer 138E Conductivity Meter, 250ml (8.5fl oz) bottle of pure distilled water, 3 x 3ml (0.1fl oz) syringes, 3 x blunt needles, 1 x 20ml Standard 1413µS/cm (1.413mS/cm) Calibration Solution, 30ml (1fl oz) plastic beaker, 4 x 1.5V batteries, transit case & user guide |                       |

\*See Elcometer 138 Conductivity Meter for full specification

# See Elcometer 138E for full specification

## Conductivity Meter

## Elcometer 138

Incorporating a flat sensor, the Elcometer 138 Conductivity Meter can measure the conductivity of a solution from a single drop of a sample.

Users can either place a sample on the meter's flat sensor or immerse the meter's sensor directly into the solution under test. The Elcometer 138 can be used for a broad range of applications, including: soluble salt concentrations, the electric conductivity (EC) of solutions used in agricultural operations and measuring rainwater pollution levels.

The Elcometer 138 Conductivity Meter includes a convenient salinity conversion indicator.

### Features:

- Highly precise measurements can be obtained from a single drop
- Automatic range switching gives a wide measurement range of 1µS/cm to 19.9mS/cm
- Out of range and low battery alarms
- Visual indication when ambient temperature is outside the operating range



### Technical Specification

|                       |  |   |                                     |
|-----------------------|--|---|-------------------------------------|
| Part Number           | Description  |   |                                     |
| T13823925             | Elcometer 138 Conductivity Meter   |   |                                     |
| Units                 | S/cm, S/m, % Salinity, ppm (Total Dissolved Salts - TDS)   |   |                                     |
| Measuring Range       | Conductivity:<br>Salt:<br>TDS:   | 0 mS/cm to 19.9 mS/cm, 0 S/m to 1.99 S/m<br>0% to 1.1%<br>0 ppm to 9900 ppm |                                     |
| Resolution & Accuracy |  | Resolution  | Accuracy                            |
|                       | 0 µS/cm to 199 µS/cm:  | 1 µS/cm   | ± 5 µS/cm                           |
|                       | 0.20 mS/cm to 1.99 mS/cm:  | 0.01 mS/cm  | ± 0.05 mS/cm                        |
|                       | 2.0 mS/cm to 19.9 mS/cm:   | 0.1 mS/cm   | ± 0.5 mS/cm                         |
|                       | 20 mS/cm to 199 mS/cm:   | 1 mS/cm   | ± 5 mS/cm                           |
| Operating Temperature | 5°C to 40°C (41°F to 104°F)  |   |                                     |
| Power Supply          | 2 x CR2032 batteries   | Battery Life  | approx. 400 hours of continuous use |
| Dimensions            | 164 x 29 x 20mm (6.5 x 1.2 x 0.8")   | Weight  | 47g (1.7oz)                         |
| Packing List          | Elcometer 138, 14ml (0.47fl oz) bottle of standard 1.41mS/cm calibration solution, 14ml (0.47fl oz) bottle of moistening solution, 2 x CR2032 batteries and operating instructions |   |                                     |

### Accessories

|                     |  |                  |                                 |
|---------------------|--|------------------|---------------------------------|
| <b>E135----C25</b>  | Elcometer 135C Bresle Test Patch (Box of 25)   | <b>T13823928</b> | Replacement Conductivity Sensor |
| <b>E135----C100</b> | Elcometer 135C Bresle Test Patch (Box of 100)  | <b>T13818517</b> | 3 x 5ml (0.17fl oz) Syringes    |
| <b>T13818518</b>    | 3 x Needles  | <b>T13818519</b> | Plastic Beaker 30ml (1fl oz)    |
| <b>T13827352-1</b>  | Standard 447 µS/cm (0.447 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches  |                  |                                 |
| <b>T13827352-2</b>  | Standard 1413 µS/cm (1.413 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches |                  |                                 |
| <b>T13827352-3</b>  | Standard 15000 µS/cm (15 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches   |                  |                                 |
| <b>T13823926</b>    | Standard 1.41 mS/cm (1410 µS/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles             |                  |                                 |
| <b>T13824404</b>    | Standard 12.9 mS/cm (12900 µS/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles            |                  |                                 |
| <b>T13827259</b>    | Pure Water 250ml (8.5fl oz) Bottle   |                  |                                 |



## Elcometer 138E

## Conductivity Meter



Incorporating a cup-style sensor, the Elcometer 138E Conductivity Meter can measure the conductivity of a solution from a few drops of a sample.

Users can either place a sample on the meter's sensor or immerse the meter's sensor directly into the solution under test. The Elcometer 138E is suitable for a broad range of applications, including: soluble salt concentrations, the electric conductivity (EC) of solutions.

### Features:

- Automatic range switching gives a wide measurement range of 0 $\mu$ S/cm to 20mS/cm
- Out of range and low battery indicators
- Automatic temperature compensation (ATC) and manual or automatic one or two-point calibration
- LCD screen with indicators and error messages, dual-line display
- User-replaceable integrated 2-pin, stainless steel electrode provides chemical resistance

### Technical Specification

|                              |  |              |                                   |
|------------------------------|--|--------------|-----------------------------------|
| Part Number                  | Description  |              |                                   |
| T13827355                    | Elcometer 138E Conductivity Meter                                  |              |                                   |
| Measurement Principle        | 2 AC Bipolar Method  |              |                                   |
| Sensor Type                  | Cup  |              |                                   |
| Units                        | µS/cm, mS/cm   |              |                                   |
| Measuring Range & Resolution | PU: 0 - 200.0µS/cm   | 0.1µS/cm     |                                   |
|                              | LO: 0 - 2000µS/cm  | 1µS/cm       |                                   |
|                              | HI: 0 - 20mS/cm  | 0.01mS/cm    |                                   |
| Accuracy                     | ± 1% of full scale   |              |                                   |
| LCD Display                  | Custom Dual Display; 27 x 21mm (1.06 x 0.83")                      |              |                                   |
| Operating Temperature        | 0°C to 50°C (32°F to 122°F)  |              |                                   |
| Power Supply                 | 4 x 1.5V LR44 batteries  | Battery Life | >150 hours                        |
| Dimensions                   | 165 x 38mm (6.5 x 1.5")  | Weight       | 90g (3.2oz) - including batteries |
| Packing List                 | Elcometer 138E, 4 x 1.5V LR44 batteries and operating instructions |              |                                   |

### Accessories

|                     |   |
|---------------------|---|
| <b>E135----C25</b>  | Elcometer 135C Bresle Test Patch (Pack of 25)   |
| <b>E135----C100</b> | Elcometer 135C Bresle Test Patch (Box of 100)   |
| <b>T13827352-1</b>  | Standard 447 $\mu$ S/cm (0.447 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches  |
| <b>T13827352-2</b>  | Standard 1413 $\mu$ S/cm (1.413 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches |
| <b>T13827352-3</b>  | Standard 15000 $\mu$ S/cm (15 mS/cm) Calibration Solution – 4 x 20ml (0.74fl oz) Single Use Pouches   |
| <b>T13823926</b>    | Standard 1.41 mS/cm (1410 $\mu$ S/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles             |
| <b>T13824404</b>    | Standard 12.9 mS/cm (12900 $\mu$ S/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles            |
| <b>T13827259</b>    | Pure Distilled Water 250ml (8.5fl oz) Bottle  |

## Elcometer Bresle Test Patches

### Elcometer 135C

The Elcometer 135C Bresle Test Patch determines the concentration of soluble salts on uncoated surfaces in accordance with the ISO 8502-6 test method.

Elcometer Bresle Test Patches are also available as part of the Elcometer 138 Bresle Salt Kit.



**STANDARDS:**  
ISO 8502-6

#### Technical Specification

C

| Part Number  | Description   | Certificate   |               |
|--------------|---|---------------|---------------|
| E135----C25  | Elcometer 135C Bresle Test Patch (Box of 25)              | •             |               |
| E135----C100 | Elcometer 135C Bresle Test Patch (Box of 100)             | •             |               |
| Test Area    | 1250mm <sup>2</sup> , 12.5cm <sup>2</sup> (1.93sq inches) | Sample Volume | 2.6ml ± 0.6ml |
| Dimensions   | 50 x 50mm (1.97 x 1.97")                                  |               |               |

## Bresle Patches

### Elcometer 135B

Elcometer 135B Original Bresle Patches are used to determine surface chloride contamination and are self-adhesive rubber film patches with a sealed compartment for sampling soluble impurities from steel surfaces with a suitable solvent.

Elcometer 135B Bresle Patches can also be used with the Elcometer 138C Bresle Salt Kit.



**STANDARDS:**  
ISO 8502-6

#### Technical Specification

| Part Number   | Description                   |            |   |
|---------------|-------------------------------|------------|---|
| E135----B     | Elcometer 135B Bresle Patches |            |   |
| Tests per Kit | 25                            | Test Area  | 1250mm <sup>2</sup> , 12.5cm <sup>2</sup> (1.93sq inches) |
| Sample Volume | 2.6ml ± 0.6ml                 | Dimensions | 52 x 52mm (2.0 x 2.0")                                    |

## Elcometer 135B Bresle Patches

Elcometer 135B Original Bresle Patches are used to determine surface chloride contamination and are self-adhesive rubber film patches with a sealed compartment for sampling soluble impurities from steel surfaces with a suitable solvent.

Elcometer 135B Bresle Patches can also be used with the Elcometer 138C Bresle Salt Kit.



### STANDARDS:

ISO 8502-6

### Technical Specification

| Part Number      | Description   |
|------------------|---|
| <b>E135----B</b> | Elcometer 135B Bresle Patches                             |
| Tests per Kit    | 25  |
| Test Area        | 1250mm <sup>2</sup> , 12.5cm <sup>2</sup> (1.93sq inches) |
| Sample Volume    | 2.6ml ± 0.6ml   |
| Dimensions       | 52 x 52mm (2.0 x 2.0")                                    |

## Elcometer 138 Bresle Salt Meter

Incorporating a flat sensor, the Elcometer 138 Bresle Salt Meter measures the conductivity of a sample, then automatically converts this to show the density of salts, negating the need for the user to do a manual calculation when working in accordance with ISO 8502-6 or ISO 8502-9.

Users can either place a sample on the meter's flat sensor or immerse the meter's sensor directly into the solution under test.

The Elcometer 138 Bresle Salt Meter features:

- Highly precise measurements can be obtained
- Out of range and low battery alarms
- Visual indication when ambient temperature is outside the operating range



### Technical Specification

| Part Number           | Description   |   |
|-----------------------|---|---|
| <b>E138-BSM</b>       | Elcometer 138 Bresle Salt Meter   |   |
| Measurement Principle | 2 Electrode Bipolar AC  |   |
| Measurement Mode      | ISO, IMO, Temperature   |   |
| Minimum Sample Volume | 0.12ml  |   |
|                       | ISO Mode  | IMO Mode  |
| Measuring Range       | 0 - 2399 $\mu\text{g}/\text{cm}^2$  | 0 - 2199 $\mu\text{g}/\text{cm}^2$  |
| Conversion Factor     | $\mu\text{S}/\text{cm}$ to $\mu\text{g}/\text{cm}^2$ : 0.12<br>$\mu\text{S}/\text{cm}$ to $\text{mg}/\text{m}^2$ : 1.2                    | $\mu\text{S}/\text{cm}$ to $\mu\text{g}/\text{cm}^2$ : 0.11<br>$\mu\text{S}/\text{cm}$ to $\text{mg}/\text{m}^2$ : 1.1                    |
| Resolution            | 0 - 239.9 $\mu\text{g}/\text{cm}^2$ : 0.1 $\mu\text{g}/\text{cm}^2$<br>240 - 2399 $\mu\text{g}/\text{cm}^2$ : 1 $\mu\text{g}/\text{cm}^2$ | 0 - 219.9 $\mu\text{g}/\text{cm}^2$ : 0.1 $\mu\text{g}/\text{cm}^2$<br>220 - 2199 $\mu\text{g}/\text{cm}^2$ : 1 $\mu\text{g}/\text{cm}^2$ |
| Accuracy              | $\pm 2\%$ full scale (for each range)   |   |
| Operating Temperature | 5°C to 40°C (41°F to 104°F)   |   |
| Operating Humidity    | 85% or less relative humidity (no condensation)   |   |
| Battery Type          | 2 x CR2032 lithium batteries  |   |
| Battery Life          | approx. 200 hours of continuous use without backlight   |   |
| Weight                | 50g (1.76oz) - including sensor and batteries   |   |
| Dimensions            | 164 x 29 x 20mm (6.5 x 1.2 x 0.8")  |   |
| Packing List          | Elcometer 138 Bresle Salt Meter, 14ml (0.5fl oz) bottle of conditioning solution, 2 x CR2032 lithium batteries and operating instructions |   |



## Elcometer 138 Bresle Salt Meter

### Accessories

|             |   |
|-------------|---|
| T13823928   | Replacement Sensor  |
| T13830629-1 | Standard 84µS/cm Calibration Solution, 250ml (8.45fl oz) Bottle |

## Elcometer 138/2 Surface Contamination Kit

Measuring the level of contaminants on a surface prior to application of the coating is essential to ensure the quality of the coating and that its optimum lifetime is achieved.

If the coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly recoating and high maintenance costs.

The Elcometer 138/2 Surface Contamination Kit provides the user with a means for testing invisible surface contaminants including:

- pH
- iron
- chloride ions
- salts



### STANDARDS:

AS 3894.6-A, AS 3894.6-D, SSPC Guide 15

### Technical Specification

| Part Number       | Description  | Certificate |
|-------------------|--|-------------|
| <b>E138----</b> 2 | Elcometer 138/2 Surface Contamination Kit  | •           |
| Measuring Range   | pH: 0pH to 14pH<br>Iron: 3,10, 25, 50, 100, 250, 500mg/l Fe <sup>2</sup><br>Chloride: 30- 600µg/cm <sup>2</sup> (30 - 600ppm) Cl   |             |
| Dimensions        | 300 x 220 x 75mm (11 x 8.6 x 3")   |             |
| Weight            | 2.1kg (4.62lb)   |             |
| Packing List      | 100 x pH test strips, 100 x Iron test strips, 40 x Chloride test strips, 50 x Elcometer 135C Bresle test patches, 3 x 5ml (0.17fl oz) syringes, 3 x needles, 30ml (1fl oz) plastic beaker, carry case and operating instructions |             |

### Accessories

|                      |   |                  |                                     |
|----------------------|---|------------------|-------------------------------------|
| <b>E135----</b> C25  | Elcometer 135C Bresle Test Patch (Box of 25)  | <b>T13827259</b> | Pure Water, 250ml (8.5fl oz) Bottle |
| <b>E135----</b> C100 | Elcometer 135C Bresle Test Patch (Box of 100) | <b>T13820562</b> | 100 x pH Test Strips                |
| <b>T13818517</b>     | 3 x 5ml (0.17fl oz) Syringes                  | <b>T13820563</b> | 100 x Iron Test Strips              |
| <b>T13818518</b>     | 3 x Needles                                   | <b>T13820564</b> | 40 x Chloride Test Strips           |
| <b>T13818519</b>     | Plastic Beaker, 30ml (1fl oz)                 |                  |                                     |

## Elcometer 134S Chloride Ion Test Kit for Surfaces

Chloride salts left on the surface before the first coat is applied can result in the coating system being forced off the surface by corrosion or blistering before the full life of the coating has been reached.

To ensure that the chloride has been removed it is essential that the surface is tested before the coating is applied.

Elcometer 134S test method: a latex sleeve is filled with a Chlor\*Rid extract solution and stuck to the test surface where the solution is worked against the surface to extract the salts. The titration tube is inserted and the results can be recorded.



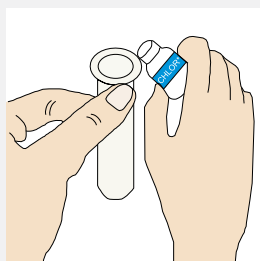
### STANDARDS:

ISO 8502-5, SSPC Guide 15

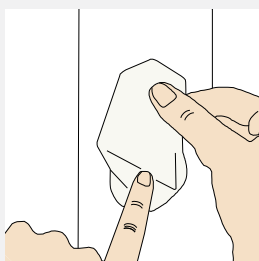
### Technical Specification

| Part Number       | Description  |
|-------------------|--|
| <b>E134-----1</b> | Elcometer 134S Salt Detection Kit for Blast Cleaned Surfaces   |
| Measuring Range   | 1 - 60µg/cm <sup>2</sup> (1 - 60ppm)   |
| Scale Resolution  | 1µg/cm <sup>2</sup> (1ppm)   |
| Tests per Kit     | 5  |
| Dimensions        | 185 x 125 x 110mm (7 x 5 x 4.5")   |
| Weight            | 250g (9oz)   |
| Packing List      | 5 x test kits each containing: titration tube snapper, strap, clip, pre-measured bottle of Chlor*Rid extract solution, sleeve, titration tube and operating instructions |

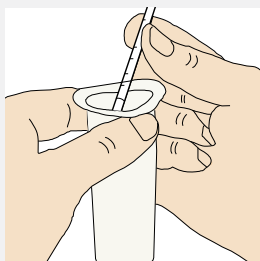
### How to use a Chloride Ion Test Kit for Surfaces



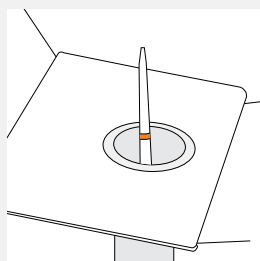
1. Remove cap from CHLOR\*EXTRACT solution bottle and pour entire contents into the test sleeve.



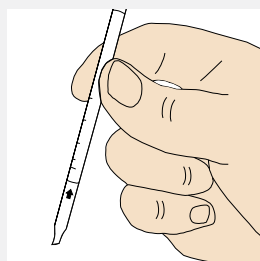
2. Firmly apply test sleeve to test surface, allowing extract solution to come into contact with test surface.



3. Insert the titration tube into the test sleeve.



4. Insert sleeve with extract solution and titration tube into the hole previously made in the box lid and wait 1½ minutes.



5. Immediately remove and read the number on the titration tube at the interface of the colour change. Pink is normal, white is the chloride level.

### Elcometer 139 Amine Blush Swab Test Kit

When using amine cured epoxy resin coatings in a multi-layer system, if the original coating cures in a low ambient temperature and/or in a high humidity environment, problems - referred to in the industry as amine blush can develop.

The presence of amine blush can lead to inter-coat adhesion failures if the film is re-coated.

The Elcometer 139 Amine Blush Swab Test Kit is a rapid colorimetric test designed solely for the use in the quick and immediate identification of amine blush (carbamates) on the surface of coatings using surface swabs. The presence of amine blush is indicated by a visual change of colour of the test solution when compared with a control sample.



#### Technical Specification

| Part Number       | Description  |        |               |
|-------------------|--|--------|---------------|
| <b>E139----</b> A | Amine Blush Swab Test Kit  |        |               |
| Dimensions        | 172 x 110 x 100mm (6.75 x 4.25 x 4.00")  | Weight | 350g (12.3oz) |
| Packing List      | 20 x Polystyrene Sampler Test Tubes of 1.0ml (0.035fl oz) buffer solution, 1 x Test tube of Diluent Part A solution, 1 x Test tube of Diluent Part B solution, 2 x Diluent Transfer Pipettes, 3 x Test Part A dropper bottles - containing ACh-E powder (freeze dried), 3 x Test Part B dropper bottles - containing ATC powder (freeze dried), 1 x Test Part C dropper bottle - containing Chromogen DTNB solution, 1 x Bottle of Swab Solution - containing 25ml (0.89fl oz) of rubbing alcohol (70% IPA), 20 x Cotton Swabs (q-tips), 2 x Swab Templates - 2.54 x 2.54cm (1 x 1"), 1 x Pair of Tweezers, 1 x Re-sealable plastic bag for content disposal 1 x User Guide. |        |               |



**Elcometer 139 Amine Blush Chip Screen Test Kit**

The Elcometer 139 Amine Blush Chip Screen Test Kit is a rapid colorimetric test designed solely for the use in the quick and immediate identification of amine blush (carbamates) on the surface of coatings using small chips or shavings.

The presence of amine blush is indicated by a visual change of colour of the test solution when compared with a control sample.

The Elcometer 139 determines whether amine blush is or is not present on the coating's surface.

**Technical Specification**

| Part Number       | Description  |        |               |
|-------------------|--|--------|---------------|
| <b>E139-----C</b> | Amine Blush Chip Screen Test Kit   |        |               |
| Dimensions        | 172 x 110 x 100mm (6.75 x 4.25 x 4.00")  | Weight | 310g (10.9oz) |
| Packing List      | 20 x Polystyrene Sampler Test Tubes of 1.0ml (0.035fl oz) buffer solution, 1 x Test tube of Diluent Part A solution, 1 x Test tube of Diluent Part B solution, 2 x Diluent Transfer Pipettes, 3 x Test Part A dropper bottles - containing ACh-E powder (freeze dried), 3 x Test Part B dropper bottles - containing ATC powder (freeze dried), 1 x Test Part C dropper bottle - containing Chromogen DTNB solution, 1 x Scissors<br>1 x Re-sealable plastic bag for content disposal, 1 x User Guide. |        |               |

**Accessories**

|                  |                 |
|------------------|-----------------|
| <b>T13923546</b> | Test Tube Stand |
|------------------|-----------------|

**Elcometer 142 ISO 8502 Dust Tape Test Kit**

The Elcometer 142 Dust Tape Test kit allows assessment of the quantity and size of dust particles on surfaces prepared for painting.

Dust on blast cleaned surfaces can reduce coating adhesion, leading to premature coating failure and sub-standard coating finish.

Used in conjunction with the Elcometer 145 Dust Tape Roller the kit can be used in accordance with the recommendations of BS EN ISO 8502-3 either as a pass/fail test or as a permanent record of the presence of dust.

**STANDARDS:**

AS3894.6-C, IMO MSC.215 (82), IMO MSC.244 (83),  
ISO 8502-3, US Navy PPI 63101-000

**Technical Specification**

| Part Number     | Description  |        |            |
|-----------------|--|--------|------------|
| E142----1       | Elcometer 142 ISO 8502-3 Dust Tape Test Kit  |        |            |
| Measuring Range | Chart with dust classes ranging from 0 - 5 with descriptions for accurate class placement  |        |            |
| Dimensions      | 210 x 297mm (8.27 x 11.69")  | Weight | 250g (9oz) |
| Packing List    | Microscope with 10x magnifier, 2 batteries (LR14), graticule, adhesive tape to specification ISO 8502-3, comparator display board, dust assessment plate, test record sheets (pack of 25) and operating instructions |        |            |

**Accessories**

|                   |                                    |
|-------------------|------------------------------------|
| <b>T14219451</b>  | Test Record Sheet                  |
| <b>T14219454</b>  | Display Board                      |
| <b>T9999358-1</b> | Adhesive Tape (1 roll) ISO 8502-3  |
| <b>T9999358-2</b> | Adhesive Tape (2 rolls) ISO 8502-3 |
| <b>T14219525</b>  | Dust Assessment Plate              |

## Elcometer 145 Dust Tape Roller

The Elcometer 145 Dust Tape Roller is used in conjunction with the Elcometer 142 Dust Tape Test kit to assess the quantity and size of dust particles on surfaces prepared for painting.

The Dust Tape Roller presses the Elcometer 142 Dust Tape to the surface using a controlled constant force as required by BS EN ISO 8502-3 (BS 7079-B3:1993).



### Technical Specification

| Part Number      | Description  |
|------------------|--|
| <b>E145----1</b> | Elcometer 145 Dust Tape Roller                                 |
| Load Exerted     | 39.2 to 49.0 N, (8.8 and 11.0 lbf) when spring fully depressed |
| Dimensions       | 160 x 70 x 110mm (6.3 x 2.76 x 4.33")                          |
| Weight           | 615g (21.7oz)  |

Алматы (7273)495-231  
 Ангарск (3955)60-70-56  
 Архангельск (8182)63-90-72  
 Астрахань (8512)99-46-04  
 Барнаул (3852)73-04-60  
 Белгород (4722)40-23-64  
 Благовещенск (4162)22-76-07  
 Брянск (4832)59-03-52  
 Владивосток (423)249-28-31  
 Владикавказ (8672)28-90-48  
 Владимир (4922)49-43-18  
 Волгоград (844)278-03-48  
 Вологда (8172)26-41-59  
 Воронеж (473)204-51-73  
 Екатеринбург (343)384-55-89

Россия +7(495)268-04-70

Иваново (4932)77-34-06  
 Ижевск (3412)26-03-58  
 Иркутск (395)279-98-46  
 Казань (843)206-01-48  
 Калининград (4012)72-03-81  
 Калуга (4842)92-23-67  
 Кемерово (3842)65-04-62  
 Киров (8332)68-02-04  
 Коломна (4966)23-41-49  
 Кострома (4942)77-07-48  
 Краснодар (861)203-40-90  
 Красноярск (391)204-63-61  
 Курск (4712)77-13-04  
 Курган (3522)50-90-47  
 Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
 Москва (495)268-04-70  
 Мурманск (8152)59-64-93  
 Набережные Челны (8552)20-53-41  
 Нижний Новгород (831)429-08-12  
 Новокузнецк (3843)20-46-81  
 Ноябрьск (3496)41-32-12  
 Новосибирск (383)227-86-73  
 Омск (3812)21-46-40  
 Орел (4862)44-53-42  
 Оренбург (3532)37-68-04  
 Пенза (8412)22-31-16  
 Петрозаводск (8142)55-98-37  
 Псков (8112)59-10-37  
 Пермь (342)205-81-47

Казахстан +7(7172)727-132

Ростов-на-Дону (863)308-18-15  
 Рязань (4912)46-61-64  
 Самара (846)206-03-16  
 Санкт-Петербург (812)309-46-40  
 Саратов (845)249-38-78  
 Севастополь (8692)22-31-93  
 Саранск (8342)22-96-24  
 Симферополь (3652)67-13-56  
 Смоленск (4812)29-41-54  
 Сочи (862)225-72-31  
 Ставрополь (8652)20-65-13  
 Сургут (3462)77-98-35  
 Сыктывкар (8212)25-95-17  
 Тамбов (4752)50-40-97  
 Тверь (4822)63-31-35

Киргизия +996(312)96-26-47

Тольятти (8482)63-91-07  
 Томск (3822)98-41-53  
 Тула (4872)33-79-87  
 Тюмень (3452)66-21-18  
 Ульяновск (8422)24-23-59  
 Улан-Удэ (3012)59-97-51  
 Уфа (347)229-48-12  
 Хабаровск (4212)92-98-04  
 Чебоксары (8352)28-53-07  
 Челябинск (351)202-03-61  
 Череповец (8202)49-02-64  
 Чита (3022)38-34-83  
 Якутск (4112)23-90-97  
 Ярославль (4852)69-52-93

<https://elcometer.nt-rt.ru/> || [erj@nt-rt.ru](mailto:erj@nt-rt.ru)