# **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.



# 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 reinject 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.

<sup>\*</sup> 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

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Part Number	Description	Certificate*
E135C25	Elcometer 135C Bresle Test Patch (Box of 25)	•
E135C100	Elcometer 135C Bresle Test Patch (Box of 100)	•
Test Area	1250mm², 12.5cm² (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)

<sup>•</sup> Certificate of Cleanliness & Test Area available at www.elcometer.com/cert

<sup>\*</sup> Elcometer 135C Bresle Test Patches are available with your logo, contact your Elcometer representative for more information.

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# Elcometer 138



# 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

# **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.

# Technical Specification



Part Number	Description		Certificate
E138-1C	Elcometer 138 Bresle Salt Kit with Elcometer 135C Br	esle 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, 14ml (0.47fl oz) bottle of standard 1.41 mS/cm calibra solution, 250ml (8.5fl oz) bottle of pure water, 3 x 5ml (plastic beaker, 2 x CR2032 batteries, transit case and	ation solution, 14ml (0.4 (0.17fl oz) syringes, 3 x	7fl oz) bottle of moistening

# Elcometer 138B



# 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

# **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.

# Technical Specification



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 (8.5fl oz) bottle of pure distilled water, 3 x 3m 1413µS/cm (1.413mS/cm) Calibration Solutransit case & user guide	l (0.1fl oz) syringes, 3 x	x blunt needles, 1 x 20ml Standar

Certificate of Cleanliness & Test Area available at www.elcometer.com/cert

\*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: 0 mS/cm to 19.9 mS/cm, 0 S/m to 1.99 S/m Salt: 0% to 1.1% TDS: 0 ppm to 9900 ppm		
Resolution & Accuracy	0 μS/cm to 199 μS/cm: 0.20 mS/cm to 1.99 mS/cm: 2.0 mS/cm to 19.9 mS/cm: 20 mS/cm to 199 mS/cm:	Resolution 1 µS/cm 0.01 mS/cm 0.1 mS/cm 1 mS/cm	Accuracy ± 5 μS/cm ± 0.05 mS/cm ± 0.5 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	
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E135C25	Elcometer 135C Bresle Test Patch (Box of 25)	T13823928	Replacement Conductivity Sensor
E135C100	Elcometer 135C Bresle Test Patch (Box of 100)	T13818517	3 x 5ml (0.17fl oz) Syringes
T13818518	3 x Needles	T13818519	Plastic Beaker 30ml (1fl oz)
T13827352-1	Standard 447 µS/cm (0.447 mS/cm) Calibration Solution	on – 4 x 20ml (0	.74fl oz) Single Use Pouches
T13827352-2	Standard 1413 µS/cm (1.413 mS/cm) Calibration Solut	ion – 4 x 20ml	(0.74fl oz) Single Use Pouches
T13827352-3	Standard 15000 µS/cm (15 mS/cm) Calibration Solutio	n – 4 x 20ml (0	74fl oz) Single Use Pouches
T13823926	Standard 1.41 mS/cm (1410 µS/cm) Calibration Solution	on – 6 x 14ml (0	.47fl oz) Bottles
T13824404	Standard 12.9 mS/cm (12900 µS/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles		
T13827259	Pure Water 250ml (8.5fl oz) Bottle		

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# 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 0µs/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 LO: 0 - 2000μS/cm HI: 0 - 20mS/cm	0.1μS/cm 1μS/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

E135C25	Elcometer 135C Bresle Test Patch (Pack of 25)
E135C100	Elcometer 135C Bresle Test Patch (Box of 100)
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
T13823926	Standard 1.41 mS/cm (1410 µS/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles
T13824404	Standard 12.9 mS/cm (12900 µS/cm) Calibration Solution – 6 x 14ml (0.47fl oz) Bottles
T13827259	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 Speci	fication			С
Part Number	Description			Certificate
E135C25	Elcometer 135C Bresle Test Patch (Box of	of 25)		•
E135C100	Elcometer 135C Bresle Test Patch (Box of	of 100)		•
Test Area	1250mm², 12.5cm² (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

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Part Number	Description		
E135B	Elcometer 135B Bresle Patches		
Tests per Kit	25	Test Area	1250mm², 12.5cm² (1.93sq inches)
Sample Volume	2.6ml ± 0.6ml	Dimensions	52 x 52mm (2.0 x 2.0")

Bresle Patch is a Trade Mark of SP Sveriges Tekniska Forskningsinstitut AB

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