

HedoN Soluble Salt Meter (SSM)

Can be used in accordance with:
ISO 8502-6 & ISO 8502-9



The Soluble Salt Meter was developed specifically to improve current methods of establishing surface cleanliness. The goals in developing the Soluble Salt Meter were to:

- Improve the time, quality, and accuracy in field analysis
- Eliminate use of syringe needles
- Develop a paperless instrument
- Automate water dosing and washing system
- Eliminate consumables (patches and syringes)
- Exactly replicate the Bresle patch protocol
- Eliminate residue left behind from Bresle and other adhesive patches

The Soluble Salt Meter is the approved alternative for use as a replacement to the Bresle patch method equivalent to ISO Standard 8502—9 (Field Method for the conductometric determination of watersoluble salts in accordance with NACE SP0508-2008).

Background

The presence of soluble salts on a surface is detrimental to applied protective coatings. As such, there are set stringent requirements for maximum allowable soluble salt concentrations for various applications.

In order to test for surface cleanliness, surface contaminants must be extracted and analyzed. In the Bresle method, which is described in ISO 8502-6, a flexible cell is applied to the surface in question and injected by syringe with deionized water. Surface salts are dissolved into this solution that is removed and tested for conductivity. Conductivity measurements, recorded in microsiemens per centimeter ($\mu\text{S}/\text{cm}$), correspond to the concentration of dissolved ions in the solution. A high conductivity measurement indicates a high level of dissolved ions and in turn salt contamination on the surface.

ISO 8502-9 provides a method to convert conductivity measurements to equivalent concentration of NaCl.

Benefits

- Accurate, easy measurements
- Repeatable results
- Rugged, industrial hardened measurement device
- Simple operating instructions
- Reduced process steps (17 steps reduced to 6 steps)
- Reduced process time (only one minute reading to reading)
- Eliminate process induced surface contamination (sticky residue)
- Equipment easily transportable (tank inspections)
- Rugged, industrial hardened measurement device
- Improved safety (syringes/needles eliminated) -
- Operator error minimized // Metered water injection // Automatic data recording feature



The Soluble Salt Meter comes with several options, each with its own benefits. In the Soluble Salt Meter it is possible to buy measurements like they were consumables. This made it possible to offer the following options:

Buy Lite

Experiencing the benefits of the Soluble Salt Meter starts by purchasing the Soluble Salt Meter kit (Buy Lite). This kit is all you need to get started and contains:

- Soluble Salt Meter
- Soluble Salt Meter adapter flat surface
- Dispenser
- Power supply
- USB cable and PC Software
- Calibration fluid
- Carrying case
- Certificate of performance
- 50 credit readings



Buy Licenses and Credits

Purchase additional measurements (credits) only when you need them or add the license for unlimited measurements.

Buy Options

Adapters for measurement pipes with diameters from 8" till 42" are available

Technical Specifications

Range	Description
Standards	Equivalent to ISO Standard 8502-9 (Field method for the conductometric determination of water-soluble salts; The Bresle method) in accordance with NACE SP0508-2010.
Water Injection Method	Automated, with simple press of fixed volume dispenser
Dose	3± 0.05 ml
Measurement Process Steps	
Total Process Time	60 seconds (Measurement to Measurement)
Measurement Range	0-100 µS/cm
Resolution	1 µS/cm
Measurement Accuracy	± 3 µS/cm
Surface Temperature Range	5 - 50 °C
Temperature probe accuracy	± 0,3 °C
Diameter of curvature	
Standard measuring head	>= 44 inch / 1100mm
Measuring head 1	26 <=> 42 inch / 650 <=> 1050 mm
Measuring head 2	14 <=> 24 inch / 350 <=> 600 mm
Measuring head 3	8 <=> 12 inch / 200 <=> 300 mm
Readout	µS/cm or mg/m ²
Measurement Area	1250 mm ² (circular) fixed footprint
Attachment Method	Magnetic with silicone seal (no effect on surface quality; proven to seal over deep pits)
Memory	Holds up to 1000 measurements (10 batches of up to 100 measurements each)
Connectivity	via USB with PC or laptop
Power Supply	Lithium-ion rechargeable battery
IP Rating	IP54
Dimensions (Instrument only)	21 x 10 x 8 cm
Weight (Instrument only)	780g

Packing List

HedoN Soluble Salt Meter
Additional Adaptor Pieces (Optional)
Bottle for deionized water
4 sachets of 84 μ S/cm validation fluid
3ml Fixed Volume Fluid Dispenser
Extra Seals
Flexible plastic tubing to connect to SSM and Dispenser
Syringe for injection of validation solution
Universal AC adapter
USB Connection Cable
CD with Manuals



Soluble Salt Meter – Test Method – 6 Total Steps 1 minute

1. Attach SSM to surface;
2. Inject deionized water into measurement chamber with one press of the dose bottle;
3. Meter automatically agitates solution (~ 40 seconds);
4. Meter automatically takes reading; - Display reading on LCD screen - Stores values electronically
5. Wipe remaining water from surface after removing SSM
6. Flush meter by turning over and injecting water from dose bottle.



Video



YouTube Video - Hedon Soluble Salt Meter (SSM) (Click on the image to the left to view the video)

The Soluble Salt Meter is a very user friendly solution for the determination of salts on the job. A price competitive and ECO friendly solution complying with ISO standard 8502-9 without the use of expensive and ECO unfriendly consumables. The new pricing structure makes automated Salt Measurements available at a price competitive level regardless if you are an individual coating inspector with a few measurements a month, need to measure the soluble salts for a specific project, or want a hassle free lease of the Soluble Salt Meter during multiple years.