

PosiTector Soluble Salt Tester

The PosiTector SST Soluble Salt Tester measures the concentration of soluble salts on metal surfaces in accordance with ISO 8502-6, 8502-9. The test is conducted before coating and after surface blasting to confirm surface salt levels are low enough to prevent corrosion issues and the attraction of water beneath a permeable coating, which can result in bubbling and coating failure.

Theory

A soluble salt tester measures the quantity of soluble salts on a substrate. To do so, deionized water is washed over the surface and collected, allowing any soluble salts to dissolve into it. The greater the soluble salt contamination on the surface, the higher the conductivity of the water. This increase can be measured, and after some calculation (automatically performed by the PosiTector SST in accordance with ISO 8502-9), the concentration of soluble salts on the substrate can be established.

The PosiTector SST includes a certified and traceable conductivity probe specifically designed for ISO 8502-6,9. Included with each probe is a Long Form Certificate of Calibration. The following parameters are measured by the PosiTector SST.

- Conductivity ($\mu\text{S}/\text{cm}$)
- Sampling Temperature ($^{\circ}\text{C}$ or $^{\circ}\text{F}$) normalized to 25°C
- Test duration

Using the measured conductivity value and the sample test volume (set within the gauge menu), the surface density of the salts (mg/m^2 or $\mu\text{g}/\text{cm}^2$) is automatically calculated in accordance with ISO 8502-9, saving the gauge operator time and eliminating the chance of a calculation error.

How to select your gauge:

| Ordering Guide | Gage/Probe Only | Kit P: PosiPatch Kit | Kit D: DeFelsko Adhesive Patch Kit | Kit L: Latex Adhesive Patch Kit |
|------------------------------------|--|---|---|---|
| Probe Only ¹ | PRBSST | SSTKITP | SSTKITD | SSTKITL |
| Standard Body + Probe ² | SST1 | SSTKITP1 | SSTKITD1 | SSTKITL1 |
| Advanced Body + Probe ² | SST3 | SSTKITP3 | SSTKITD3 | SSTKITL3 |
| Inclusions | <ul style="list-style-type: none"> • Nylon carrying case with shoulder strap (SST1 and SST3 only) | <ul style="list-style-type: none"> • PosiPatch (5) • Magnetic Ring • Syringe and PlasticTip(2) • 500 ml DI Water • Cup (5) • Hard-shell Carrying Case | <ul style="list-style-type: none"> • DeFelsko Adhesive Patch(25) • Syringe and Needle (2) • 500 ml DI Water • Cup (5) • Hard-shell Carrying Case | <ul style="list-style-type: none"> • Latex Adhesive Patch (25) • Syringe and Needle (2) • 500 ml DI Water • Cup (5) • Hard-shell Carrying Case |

¹ PosiTector SST Probe Only models come complete with: certified conductivity standard, foam swabs (5), Long Form Certificate of Calibration traceable to NIST, instructions, PosiSoft Software, two (2) year warranty.

² PosiTector SST Standard/Advanced Body + Probe models come complete with: protective rubber holster, certified conductivity standard, foam swabs (5), Long Form Certificate of Calibration traceable to NIST, belt clip, wrist strap, 3 AAA alkaline batteries, instructions, protective lens shield, USB cable, PosiSoft Software, two (2) year warranty.

Technical Specifications

| | |
|---------------------------|---|
| Range | 0-500 $\mu\text{S}/\text{cm}$ 0-2000 mg/m^2 0.0-200.0 $\mu\text{g}/\text{cm}^2$ |
| Resolution * | 1 μS , 1 mg/m^2 , 0.1 $\mu\text{g}/\text{cm}^2$ |
| Accuracy | +/- 2 $\mu\text{S}/\text{cm}$ (0-200 $\mu\text{S}/\text{cm}$) +/- 10 $\mu\text{S}/\text{cm}$ (201-500 $\mu\text{S}/\text{cm}$) |
| Temperature Range | 0 - 50 $^{\circ}\text{C}$ |
| Normalization Temperature | 25 $^{\circ}\text{C}$ |
| Test Cell Volume | 1 ml |



PosiTector SSTKITP1 shown



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Standard Gauge Features

Storage of 250 readings - stored readings can be viewed or downloaded

Simple

- Conductivity probe specifically designed for ISO 8502-6,9
- Displays test duration, sample temperature, conductivity ($\mu\text{S}/\text{cm}$) and surface density (mg/m^2 or $\mu\text{g}/\text{cm}^2$)
- Easy 1-2-3 gauge interface guides users through the Bresle test method
- Automatic storage of a background (blank) measurement — handy when performing multiple tests

Durable

- Solvent, acid, oil, water and dust resistant – weatherproof
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on body AND probe

Accurate

- Long Form Certificate of Calibration showing traceability to NIST included
- Includes certified conductivity standard (calibration solution) to verify probe accuracy. Certificate included.
- Automatic temperature normalization and sample temperature reporting
- Conforms to national and international standards including ISO, NACE, SSPC, IMO and US Navy

Versatile

- PosiTector body accepts all PosiTector SST, 6000, 200, SPG, RTR, DPM, SHD and UTG probes easily converting from a soluble salt tester to a coating thickness gauge, surface profile gauge, dew point meter, shore hardness durometer or ultrasonic wall thickness gauge
- Ideal for determination of water-soluble contaminants in non-metallic blast media
- A selection of kits include everything needed to retrieve and analyse soluble salts on surfaces
- Adjustable for various patch volumes
- Selectable display languages
- High contrast, reversible colour LCD with backlit display
- Uses alkaline or rechargeable batteries (built-in charger)

Powerful

- Tracks test duration in accordance with ISO 8502-6
- Screen Capture – save screen images for record keeping and review
- USB port for fast, simple connection to a PC and to supply continuous power
- Every measurement is date and time stamped
- Software updates via the internet keep your gauge current
- PosiSoft USB Drive—stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers. No software required
- Includes PosiSoft suite of software for viewing, analysing and reporting soluble salt data

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Bresle Method

The Bresle method is used for extracting soluble salts from a metal surface. A patch is adhered to the surface, deionised water repeatedly washed into the patch to dissolve surface salts, then the conductivity is measured. The correct procedure for this test using a conventional adhesive patch or the improved, magnetic PosiPatch is explained below:

- Adhesive patches should be removed from their backing and adhered to the metal surface, the PosiPatch is placed in its magnetic carrier and allowed to connect the surface. For either test method it is critical that the internal surface of the patch is not touched or allowed to contact anything but the metal surface to be tested.
- The syringe is filled with 3 ml of deionised water and any air removed. For foam patches the metal syringe is pushed diagonally through the foam into the test patch. The PosiPatch plastic needle only needs to be inserted into the filling port.
- For foam patches inject half the water into the patch use the syringe to remove all air, remove and expel the air from the syringe and fill the patch with the remainder of the 3mm water. The PosiPatch has an air permeable membrane and needs to only be filled with all 3mm of water, the air will escape during filling.
- Start the SSG gauge timer and for an agreed time of test. During the test period extract and inject the water into the patch at least four times.
- Extract all 3 ml water and inject it into the PosiTector SST to measure conductivity and surface salts.



Additional Features

- Storage of 100,000 readings in up to 1,000 batches
- Batch annotation—add notes and change batch names with on-screen keyboard
- WiFi technology wirelessly synchronizes with PosiSoft.net and downloads software updates
- Data transfer via USB to a PC or via Bluetooth Wireless Technology to a mobile device, PC or printer
- Store thickness, profile, environmental, wall thickness, hardness and salinity measurements in individual batches
- PosiTector App - Mobile app connects PosiTector Advanced instruments to your iOS or Android smart device
- Auto-pairing Bluetooth BLE connection
- Easily create custom reports from your measurement data in seconds
- Export readings to PosiSoft Desktop or synchronize readings with PosiSoft.net for further reporting and archival options

About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.

PCTE supply three main ranges: NDT, Lab and Geotech Instrumentation.

- NDT includes: Rebound Hammers, Covermeters, Ultrasonics, GPR, Corrosion Testing, Coating Testing and Foundation Testing
- Lab includes equipment for: Concrete, Cement, Aggregate, Soil, Asphalt and Metal
- Geotech Instrumentation includes: Strain Gauges, Piezometers, Inclometers, Extensometers, Tiltmeters, Load Cells and Dataloggers