



HUMBOLDT

Giatec SURF™ Surface Resistivity

Surf™ is a laboratory non-destructive test device for rapid, easy and accurate measurement of the surface electrical resistivity of concrete based on the four-probe (Wenner-Array) technique according to AASHTO TP 95-11, and pending ASTM specifications. Surf™ has a unique and customized setup, which enables the measurement of electrical resistivity with high accuracy by reducing the duration of the test and minimizing ambient effects.

The Surf™ provides a test cradle for 4" x 8" cylinders, which provides four (4) 4-sensor arrays positioned at 90° intervals around the cradle. Surf™'s patented technology automatically takes measurements at each of the sensor points around the cylinder and then repeats the process for all 8 measurements in less than 15 seconds. The included PC software takes this information and generates the reports required by the Standards.

Applications:

- Performance-based, quality control testing of concrete
- Estimation of chloride diffusion coefficient of concrete
- Service-life design of concrete structures
- Estimation of the remaining life of concrete structures
- Crack detection in concrete elements under load
- Monitoring the setting time of fresh concrete

Features:

- Patented technology
- Fully compliant with both AASHTO TP95 and the upcoming ASTM standard
- Fast measurement (8 measurements < 15s)
- Four-channel surface resistivity meter
- Variable frequency (13 - 100 Hz)
- Limits moisture loss
- Automatic report generation with PC software
- Fresh concrete testing/crack detection applications



Surf™ Surface Resistivity

Technical Specifications

General

Type	Value
Measurement Channels	4
Measurement Display on LCD	Yes
LCD Display Area	65 x 33 mm
Dimensions of Device	200 x 160 x 70 mm
Software	Surf™ Data Monitor

Reading Range and Accuracy

Reading Range	Frequency Range	Accuracy
0.1 – 100 KΩ.cm	13 – 100 Hz	± (0.1+1%)
100 – 1000 KΩ.cm	13 – 100 Hz	± (1+1%)

Measurement Time

Frequency	Time (Single Measurement)	Testing Time (8 Measurements)
13 – 100 Hz	1.5 seconds	<15 seconds

Operating Conditions

Temperature	Humidity	Voltage/Current	Storage Temp.
15°C - 45°C	30% - 80%	100-240 V, 50/60Hz	0° to 60°C

Ordering Information

Model#	Description
HG-9037	Surf™ unit, 100 x 200mm (4" x 8") Sample holder, Power adaptor, USB cable, Communication software, User manual, Conductive gel
HG-9030	Surf™ Device only (no sample holder)
HG-9031	Surf™ Sample Holder, 4" x 8" (100 x 200mm) Dia.
HG-9032	Surf™ Verification Kit, High and Low range
HG-9038	Surf™ Conductive Gel - High Viscosity, 250 ml bottle
HG-9033	Surf™ Test Cable, Four-point with clip
HG-9034	Surf™ Contact Sponge Set, 16 pcs.

Surf™ is a trademark of Giatec Scientific, Inc.



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