



RCON™

Laboratory Device for Testing the Bulk Electrical Resistivity of Concrete

“The RCON is an amazing tool for the concrete arena. We have successfully used this device on a wide variety of projects. It's ease of use coupled with data relating to permeability helps us determine the appropriateness of concrete mixtures.”

Dr. Jon Belkowitz

Chief Technical Officer, Intelligent Concrete



Fast & Accurate
Measurements



Non-Destructive
Technology



Customizable
Setup

Overview

RCON is an advanced non-destructive laboratory tool for measuring the bulk electrical resistivity of concrete at various ages. The device is fast (measurement time is less than 5 seconds), accurate (utilizing a variable frequency method), and flexible (measurements can be taken with different settings for verification). No additional sample preparations are required before testing. RCON allows for continuous measurement of electrical resistivity over time, which can be used to monitor important durability parameters of concrete, such as; cracking, moisture transfer, and setting time in concrete specimens.

Software

- AC measurement
- Phase detection (0-180 degree)
- Accurate data ($\pm 2\%$)
- Continuous resistivity and resistance measurements
- Free user-friendly PC program
- Fixed or sweep frequency

Hardware

- Fast measurement (< 5 Second)
- Stand-alone operation device
- Flexible sample holders
- Customizable setup
- Fresh probe set-up

Reading Range and Accuracy

Reading Range	Frequency Spectrum	Phase Measurement	Impedance Accuracy	Phase Accuracy
1-100 Ω	1 Hz - 30 KHz	0-180°	$\pm 2\% \pm 2$ digit	5% ± 3 digit
0.1-1 K Ω				
1-10 K Ω				
10-100 K Ω				
0.1 - 1 M Ω	1 Hz - 10 KHz			

Measurement Time

Frequency	Sampling Time	Reading Time (minimum)
1 Hz - 4 Hz	5 seconds	10 seconds
5 Hz - 30 KHz	1 second	2 seconds

Applications

- Diffusion of chloride in concrete
- Setting time of fresh concrete
- Moisture transfer in concrete
- Curing of concrete
- Monitor concrete durability



Technical Specifications

Standard
AASHTO TP 119, ASTM C1876, & CSA A23.3 - 26C

Software
Free PC program

