



RCON2 Resistivity Meter

The RCON is an advanced tool for the electrical resistivity measurement of concrete using uniaxial method. The RCON employs AC impedance technique for the accurate and fast readings that can be continuously obtained using the operating software for various concrete materials.

This non-destructive test can be easily conducted on fresh or hardened concrete specimens at different ages or various stages of hydration. The electric resistivity method also applies to investigate corrosion of rebar in concrete, creep, aggregate segregation and freeze and thaw concrete.

Features:

- Fast (<5 second)
- Accurate ($\pm 2\%$)
- AC measurement
- Wide range of measurement frequencies (1Hz to 30kHz)
- Phase detection (0-180 degrees)
- Standalone operation
- Continuous measurement
- User-friendly PC software
- Flexible sample holders
- Customizable setup
- USB connection to computer

Application

The RCON is a unique tool to investigate the micro-structural properties of concrete including:

1. Performance-Based Quality Control of Concrete
2. Diffusion of Chloride in Concrete
3. Corrosion of Rebar in Concrete
4. Setting Time of Fresh Concrete
5. Moisture Transfer in Concrete
6. Micro-Crack development in Concrete



Technical Specifications

Reading Range and Accuracy

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

Measurement Time

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

Operating Conditions

Type	Value
Operating Temperature	15°C - 45°C
Operating humidity	30% - 80%
Storage temperature	0°C - 60°C
Storage humidity	5% - 90%
Operating voltage/current	100 - 240 V, 50/60 Hz
Dimensions	200 x 230 x 70 mm
Data acquisitions software (PC software)	Yes

