



Giatec iCOR™

CORROSION DETECTION MAPPING OF CONCRETE STRUCTURES

OVERVIEW

Giatec iCOR™ is a hand-held device that measures several parameters from the surface of concrete and then analyzes them using advanced algorithms embedded in the device. These quick calculations determine the ‘rate of corrosion’ and ‘corrosion potential’ in the reinforcement as well as the ‘resistivity of concrete’ which are the most important factors in evaluating the service life of a concrete structure. It also records the temperature and humidity of the testing environment which can be used for further analysis of remaining service life of structures.

APPLICATION

iCOR™ is a unique device for condition assessment of reinforced concrete structures that can be used for

- Detection of corrosion in reinforced concrete structures
- Measurement of corrosion rate in existing concrete structures
- Measurement of the electrical resistivity of concrete
- Determination of corrosion potential of rebar in concrete
- Assessment of concrete durability on site
- Rehabilitation and repair of concrete structures

FEATURES

- Easy-to-use: no rebar contact is required, requires minimum training
- Fast: measurements within seconds
- Accurate: comparable to laboratory techniques
- Non-destructive: used for existing structures
- Non-subjective: algorithm-based interpretations
- Efficient: detect initial signs of corrosion



TECHNICAL SPECIFICATIONS

General

Type	Value
Measurement Time	3 to 30 s
Applied Voltage Range	<30 V
Measurement Accuracy	1 mV
Sampling Rate	0.3 s
Input Impedance	>10 M ohm
Temperature Measurement Range	-30 ~ 60 °C
Temperature Measurement Accuracy	±0.5 °C
Humidity Measurement Range	0 ~ 100 %
Humidity Measurement Accuracy	±3%
Communication Protocol	Bluetooth V4.0 LE
Probe Weight	250 gr

Operating Conditions

Type	Value
Operating temperature	0 ~ 45 °C
Operating humidity	10 ~ 95%
Storage temperature	-20 ~ 70°C
Storage humidity	10 ~ 80%
Dimensions of the Probe	200 mm x 50 mm (D x H)

Note: Specifications are subject to change without notice.



