GIATEC SCIENTIFIC

Giatec BlueRock™

Wireless Temperature and Humidity Sensor for Concrete

Giatec BlueRock™ is a rugged waterproof sensor for wireless monitoring the relative humidity and temperature of concrete from fresh stage to hardened stage.

BlueRock™ can be placed in the concrete at the pouring time to monitor the temperature and humidity of concrete in-situ. The continuous measurements are recorded on the BlueRock™ memory and can be downloaded at any time during the concrete setting and hardening using BlueRock™ mobile app on smartphone/tablet.

The continuous monitoring of concrete relative humidity and temperature can be used as a QC/QA method. Knowing the level of humidity in the concrete, flooring companies can decide on the timing of installation of floor covering (such as resilient flooring, epoxy coating, or wood) based on the type of concrete materials. Unlike the current time-consuming methods that measure only one data point at the testing time through drilling a hole in concrete, BlueRock™ offers an embedded wireless solution for continuous measurement and accurate monitoring of humidity variations in concrete over time.

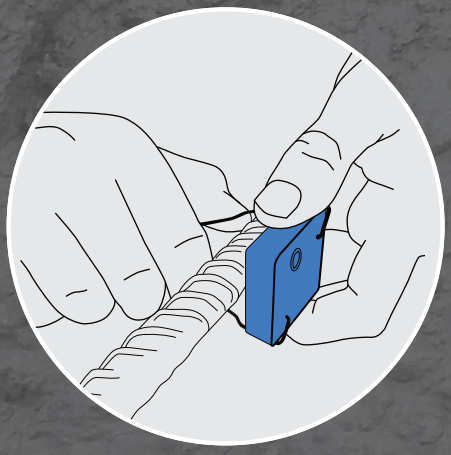
APPLICATIONS

BlueRock™ can be used to monitor the temperature and humidity of fresh and hardened concrete. This can provide information on:

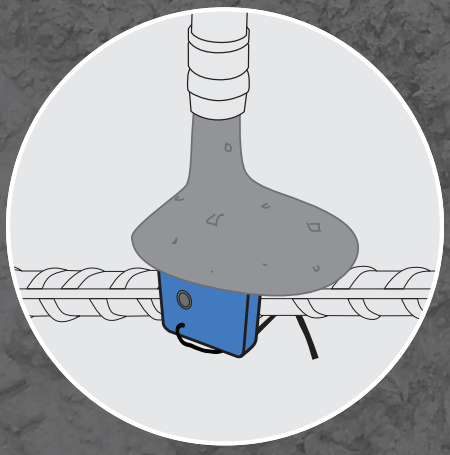
- Drying level in concrete floors
- Effectiveness of curing conditions
- Optimization of flooring installation
- Water penetration in concrete
- Monitoring of humidity gradients

HOW TO USE BLUEROCK™ IN 3 EASY STEPS

① Install Sensor*



② Pour Concrete



③ Read Sensor

*Sensors should be installed within 5cm (2 inches) below the surface of concrete

FEATURES

Hardware

- Wireless Technology
- Rugged and waterproof design
- Continuous measurement and recording of humidity and temperature (once every 8 hours)
- Easy installation and activation by tying the wires together
- Long battery life (up to 6 months after installation)
- Patents pending

Software

- Real-time data display (e.g. humidity and temperature)
- Free **Android** and **iOS** apps for smartphone and tablet
- Interactive plotting of data
- Easy data sharing
- Full report generation in csv format

TECHNICAL SPECIFICATIONS

	Reading Range	Accuracy[1]
Temperature	-30°C to 60°C (-22°F to 140°F)	± 1°C (± 1.8°F)
Relative Humidity[2]	0 to 100%	20 to 80%, ±2% <20% or >80%, ±3% Hysteresis ±1%

[1] Accuracies are tested at Outgoing Quality Control at 25°C and 3.0V. Values exclude hysteresis and long-term drift and are applicable to non-condensing environments only.
[2] Normal operating range: 0 to 80% RH, beyond this limit the sensor may read a reversible offset with slow kinetics (+ 3% RH after 60h at humidity > 80% RH)

Wireless Signal Range	up to 6-8 meters (20-26 feet)
Dimensions	39 x 39 x 20 mm (1.5 x 1.5 x 0.7 inches)
Battery Life	up to 6 months

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