

Wireless Temperature and Strength Sensor for Concrete

Giatic SmartRock2™ is a rugged mobile-based wireless sensor for monitoring the temperature and strength of concrete from fresh to hardened stage.

How to use SmartRock2™ in 3 Easy Steps

1. Install Sensor¹
2. Pour Concrete
3. Read Sensor Data

Overview

SmartRock2™ can be easily placed in the concrete formwork (installed on the rebar) before pouring to monitor the in-situ temperature and maturity of concrete according to ASTM C1074. The continuous measurements are recorded on the SmartRock2™ memory and can be downloaded and analyzed onsite at any time during the concrete setting and hardening using the free Android/iOS mobile apps on a smartphone or tablet device.

Applications

- Formwork removal timing
- Post-tensioning
- Monitoring temperature gradients in mass concrete
- Optimizing curing conditions
- Controlling quality in the field
- Opening roads to traffic

"The SmartRock2™ has been friendly in establishing maturity curves for our Wind Turbine projects. While on-site, the wireless capabilities have made the process of data retrieval simpler, and the ease of use of the application has saved time where it counts."



Ryan Janowicz
Lead Project Engineer, Wanzek Construction Inc.



Features

Hardware

- Wireless technology
- Rugged and waterproof design
- Easy installation and activation by tying the wires together
- Extended temperature sensor cable for mass concrete
- Long battery life (up to 3-4 months after installation)
- Patents pending

Software

- Real-time data display (e.g. temperature, strength, max-min)
- Maturity calibration database
- Free Android and iOS apps for smartphone and tablet
- Easy data sharing between team members
- Project management tools
- Full PDF reporting and CSV data exporting



Technical Specifications

Reading Range	-30 to 80 °C (-22 to +176 °F)
Accuracy	± 1°C
Measurement Frequency	Once every 30 mins
Wireless Signal Range	Up to 6-8 meters (20-26 feet)
Dimensions	38 x 38 x 12 mm (1.5 x 1.5 x 0.5 inches)
Temperature Cable Length	40cm (16 inches)/ 3m (10 feet)
Battery Life	Up to 4 months after installation
Data Communication and Analysis	Android and iOS app



Wireless Technology



Free Android and iOS App



Easy Activation

¹ Sensors should be installed within 5cm (2 inches) below the surface of concrete