GIATEC

SmartRock™

Wireless Concrete Sensor for Temperature and Strength Monitoring

> "SmartRock has been a good investment in that it's extremely user-friendly, convenient, and saves us time on our project."

Allan Hayes
Construction Quality Manager
Regional Rail Partners

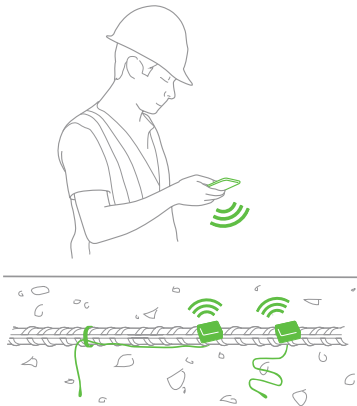Wire-Free & Wireless Technology

Remote Monitoring Capabilities

Easy Activation & Installation

Real-Time Data Collection

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Conventional Methods

Overview

SmartRock is the world's leading wireless sensor for monitoring the curing and hardening of concrete. The sensor is fully-embedded and secured on the rebar, making it completely maintenance and hassle-free. Temperature data is collected at two locations in the sensors' cable and body. The strength of your in-place concrete is then calculated automatically based on the maturity method (ASTM C1074). These results are accessible in real-time and remotely through the SmartRock mobile app and on the Giatec 360™ cloud dashboard to help you make informed decisions. SmartRock's AI assistant, Roxi™, eliminates human-error by sending smart notifications and alerts to give you the upmost confidence in your mix calibration data and accuracy of strength test results.
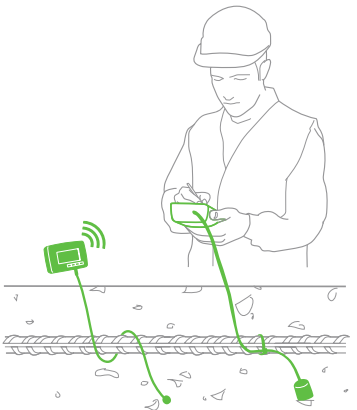
Features

Software

- Accurate real-time data display (i.e. temperature, strength, max-min values, and graphs)
- Maturity calibration database
- Free Android/iOS app with easy-to-use guide
- Project management tools including live data sharing
- Giatec 360 web-based cloud dashboard
- Proactive AI notifications of concrete pouring time and mix calibration errors
- Full PDF & CSV reporting and data exporting
- Open API integration with project management applications (i.e. Procore)

Hardware

- Wire-free and wireless technology
- Fast, simple, and hassle-free activation and installation
- Extended temperature cable and probe for mass concrete
- Two points of temperature measurements located in sensor cable and body
- Rugged and waterproof design
- Long battery life
- 24/7 remote monitoring capabilities with the SmartHub™ device

Applications

- Measure temperature differentials
- Accelerate formwork removal
- Control quality in the field
- Speed up post-tensioning
- Open roads to traffic faster
- Optimize curing conditions
- Improve saw cutting time

Technical Specifications

Reading Range
–22 to +181 °F (–30 to 85 °C)

Measurement Accuracy
± 1.8 °F (± 1°C)

Measurement Resolution
± 0.18 °F (± 0.1°C)

Measurement Frequency
Once every 15 mins
(for 2 months of data)

Wireless Signal Range
Up to 40 ft (12 m)

Temperature Cable Length
12 in (30 cm) / 10 ft (3 m)

Battery Life
Up to 4 months after installation

Data Communication and Analysis
Free Android and iOS app
Giatec 360 Cloud Dashboard

Standards
ASTM C1074 (Approved by ACI 318, CSA A23.1, most USDOT specifications)