

# SmartRock2

Wireless Temperature and Strength Sensor for Concrete



## ASTM C1074



SmartRock2 is a rugged, waterproof, wireless sensor that allows to control the real-time temperature and maturity of concrete. The sensor is installed on the rebar placed in the concrete formwork before pouring. Using the SmartRock2's smartphone/tablet app for monitoring the maturity of the concrete and sharing the data is easy and quick.



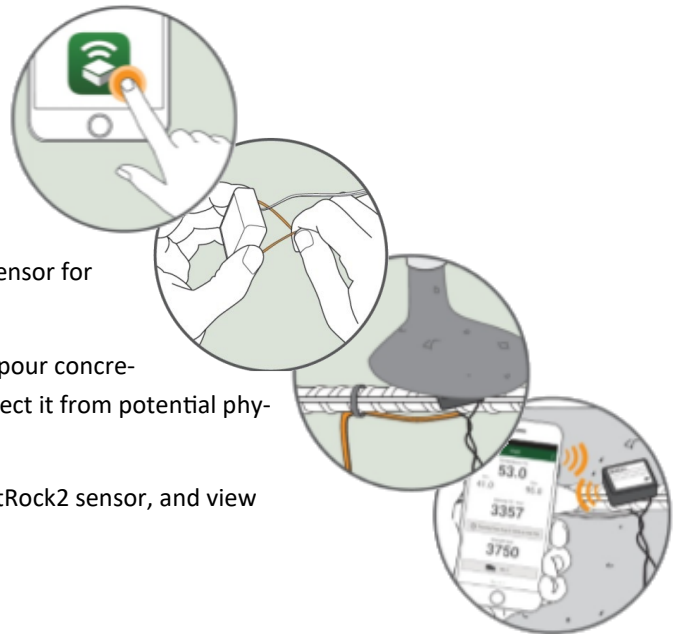
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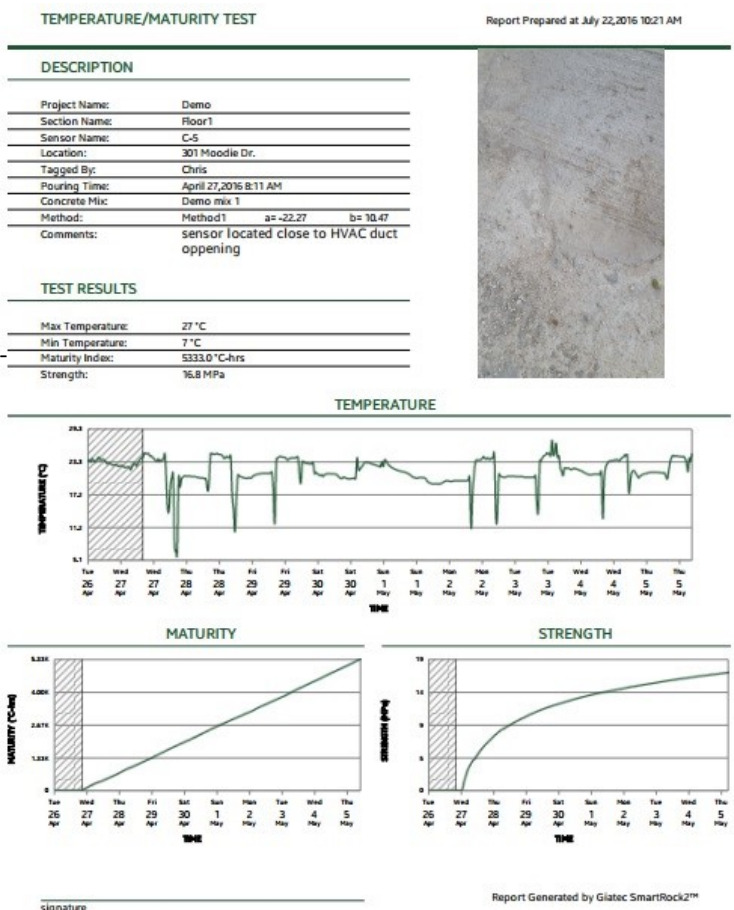
## How to use the SmartRock2 in 4 easy steps:

1. **Tag the sensor:** Label the sensor with the tag indicating its location both on the sensor and in the mobile application.
2. **Install sensor :** Attach the SmartRock2 sensor to the rebar by twisting the metal wires together. This will activate the sensor for measuring the concrete strength and temperature.
3. **Pour concrete:** After installing the sensor in the formwork, pour concrete as usual. Secure the sensor cable under the rebar to protect it from potential physical damage.
4. **Obtain results:** At any time, wirelessly connect to the SmartRock2 sensor, and view the temperature and strength.



## The unique features of this device:

- Ruggedized and waterproof design
- Wireless Bluetooth technology
- Monitoring the real-time data (e.g. temperature, strength, max-min)
- Easy installation and activation by tying the wires together
- Extended temperature sensor cable for mass concrete
- Long battery life (about 4 months in room temperature)
- Maturity calibration curve database
- Android and iOS apps for smartphone and tablet
- PDF report generation
- Easy data sharing
- Photo's attachment
- Patents pending



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## Technical Specification

### Operating temperature

Transmitter/Logger: -20°C to 60°C

Temperature sensor: -30°C to 80°C

### Measuring accuracy: ± 1°C

### Wireless operating range\*: 6-8 m

### Logging interval: 30 minutes

### Memory capacity: 1500 samples (31 days of data)

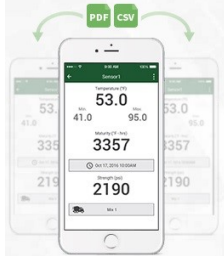
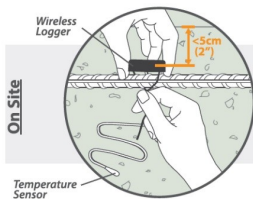
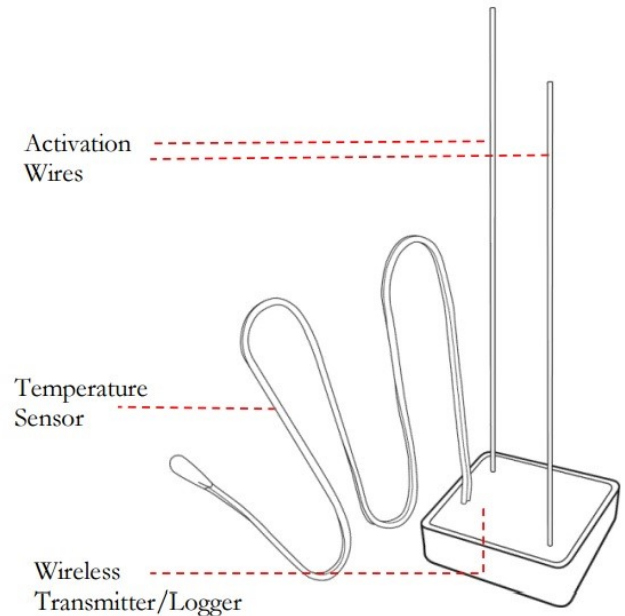
### Temperature sensor cable length:

Regular Version<sup>1</sup>: 40 cm,

Long version<sup>2</sup>: 300 cm

### Dimensions: 38x38x12 mm; 30 g

\*Some factors could affect the operating range of the sensors, e.g; type of smartphone used; curing state of the concrete, physical installation location, depth and surrounding obstacles. The recommended depth for embedding the transmitter part of the sensor in concrete is 5 cm.



## Wireless Bluetooth Technology

Easy monitoring the sensor data wirelessly—using the SmartRock2 app on a smartphone or tablet

## Optimize Break Tests

Concrete cylinder break tests can be minimized or eliminated using the maturity function of the SmartRock2

## ASTM Strength Estimation

SmartRock2 can accurately estimate the strength of concrete over time in accordance with ASTM C1074 standard for maturity based strength.

## Team Data Sharing

Sensor data are automatically shared and updated across workers teams devices ensuring everyone has the most updated results

<sup>1</sup>**PGI 900067 SmartRock2** offered by **BAG-MacBen** contains SmartRock2 sensor (wireless transmitter and temperature sensor with regular cable length), free iOS and Android application for smartphone or tablet, quick user guide

<sup>2</sup>**PGI 900109 SmartRock L cable sensor** offered by **BAG-MacBen** contains SmartRock2 sensor (wireless transmitter with long version of temperature sensor cable length), free iOS and Android application for smartphone or tablet, quick user guide

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