



Measuring and monitoring the in-place strength of concrete is a critical step for construction operations such as formwork removal and post-tensioning. The current methods such as breaking field-cured specimens are not efficient as they offer delayed information which could have significant financial implications.

SmartRock[™] Plus is a new value-added solution that is designed to address these challenges by offering real-time concrete strength results on the job-site. This is made possible through a combination of wireless smart sensors and the SmartRock[™] Plus mobile app. Contractors benefit from SmartRock[™] Plus through:

- · Access to Real-Time Strength Results
- Better Control on Project Scheduling
- Mobile-Based Wireless Connectivity
- Early Project Completion Time
- Reduced Labor Cost and Break Tests



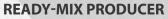
SmartRock[™] Plus uses the well established method of concrete maturity based on the ASTM C1074 standard practice in order to measure the in-place strength of concrete. This method, which is adopted by ACI as well as many DOTs in the US, uses pre-calibrated information to correlate the temperature history of concrete to its compressive strength.

Through the SmartRock[™] Plus solution, contractors only need to install smart sensors within the formwork, and use the SmartRock[™] app to select the Smart[™] mix used with that sensor. The mobile app then analyzes the data obtained from the wireless sensor to show concrete strength, instantly.



smartRoc

REAL-TIME STRENGTH RESULTS ON THE



CONSTRUCTION SITE

Temperature (°F)

Maturity (°F - hrs)

3357

Oct 17, 2016 10:00AM

Strength (psi)

3750

4500H - Atlanta

95.0

41.0

HOW TO USE SmartRock™ Plus Sensors







B Read Sensor



PROJECT COLLABORATION & REPORTING

The SmartRock[™] Plus mobile app has many advanced features to help contractors save time. In addition to access to temperature and strength history of concrete, the SmartRock[™] Plus app generates full PDF reports on the sensor results including graphs, summaries, and pictures that are ready for print and submission. Projects can also be shared with other collaborators through the cloud so that all the team members have access to the latest updates on the results from the sensors.

FEATURES

- Reless Technology
 - Rugged and waterproof design
- Beal-time temperature/strength display
- Easy data sharing and reporting
- Free Android and iOS apps
- Easy activation by tying the wires
- Based on ASTM C1074 Standard

TECHNICAL SPECIFICATIONS²

Reading Range	-22 to +176 °F (-30 ~ 80 °C)
Accuracy	± 1.8 °F (± 1 °C)
Measurement Frequency	Once every 30mins for 1 month
Wireless Signal Range ¹	20-26 feet (6-8 meters)
Dimensions	1.5 x 1.5 x 0.5 inches (38 x 38 x 12 mm)
Temperature Cable Length	16 inches (40cm) or 10 feet (3 meters)
Battery Life	Up to 4 months after installation
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¹Sensors should be installed within 2 inches (5cm) from the surface of concrete ²Subject to change

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