GreenVibe
concrete data

1 **SENSE**
Measures concrete curing and strength development

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2 **DEVICE**
Collects Sense™ data and transmits wirelessly

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3 **HUB**
Receives data from up to 40 Devices and connects to the cloud

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4 **GREENVIBE APP PLATFORM**
Remote visualization, analysis, storage and project records

GreenVibe Sense™ | Model AS-001

Embedded concrete monitoring sensor for continuous, real-time insight into concrete curing and strength development.

5	IP68
combined sensing technologies	rugged enclosure
±3 MPa	**4-85°C**
measurement accuracy	measurement range



PRODUCT OVERVIEW

GreenVibe Sense™ is embedded directly within concrete and continuously measures physical properties using five different technologies. The data supports real-time engineering decisions, quality assurance, optimized construction scheduling and comprehensive project documentation. Continuous monitoring can also help identify abnormal curing conditions early and support optimized mix designs.

- Measures concrete strength from within the element
- One sensor - multi-sensing
- Continuous real-time strength development data
- Remote monitoring through the GreenVibe app platform
- Non-destructive testing (NDT)
- Designed for harsh construction environments

TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATION
Product name	GreenVibe Sense™
Model number	AS-001
Product type	Embedded concrete monitoring sensor
Measured parameters	Concrete strength, temperature, curing conditions
Dimensions	168.2 × 60.8 × 46.15 mm
Cable length	2 m

PARAMETER	SPECIFICATION
Weight	290 g
Ingress protection	IP68
Temperature measurement range	4°C to 85°C
Measurement accuracy	±3 MPa
Operating temperature	4°C to 85°C
Storage temperature	0°C to 65°C
Operating humidity	100%

OPERATING PRINCIPLE & SYSTEM INTEGRATION

GreenVibe Sense™ is installed on the reinforcement before concrete placement. During curing, the sensor continuously measures strength development using five combined technologies. Collected data is transmitted to the GreenVibe Device and GreenVibe Hub, uploaded to the GreenVibe cloud-based machine-learning database for analysis, and then made available in the GreenVibe app platform for remote visualization, performance analysis and project records.

TYPICAL APPLICATIONS

- Building foundations
- Suspended slabs
- Columns
- Walls
- Bridge decks
- Infrastructure
- Beams
- Precast elements
- Retaining walls
- Mass concrete pours

PERFORMANCE BENEFITS

- Early detection of abnormal curing conditions
- Earlier pre/post-tensioning decisions
- Earlier formwork removal decisions
- Improved quality assurance and traceability
- Continuous project documentation
- Reduced manual inspections
- Support for optimized concrete mix designs
- Potential reduction in cement consumption and embodied carbon

INSTALLATION - QUICK REFERENCE

- Install before concrete placement, secured firmly to rebar
- Place at least 20 cm inside the pour, as deep as practical
- Keep the metal cups clean and the space between them clear
- For horizontal installation, orient open sensor ends upward
- Route and secure the data cable outside the pour area
- Protect the cable from reinforcement loads and site equipment

DATA MANAGEMENT

Monitoring data supports concrete quality assurance, engineering verification, construction progress monitoring, compliance documentation, historical project records and long-term project analysis.

MISCELLANEOUS

SAFETY

For professional use in construction environments. Use GreenVibe Sense™ only for its intended purpose and follow the GreenVibe Installation Guide.

WARRANTY

Warranty period: 6 months. For warranty terms and technical support, contact GreenVibe.

GREENVIBE

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