

CONTEMP



Manual

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Concrete Temperature & Maturity Monitoring Solution

Hardware



White Sensor



Black Sensor



Durable Waterproof Transmitter

4 x AA

4 x AA Batteries
Included with Accessory Pack
Alarm will be sent for Low Battery



Optional: NIST Certification

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CONTEMP is the reliable, economical and environmentally friendly solution to monitor a Mass Concrete Pour. No costly sacrificial loggers, hidden fees or subscriptions. CONTEMP's patented alarm based system safeguards your thermal control plan.

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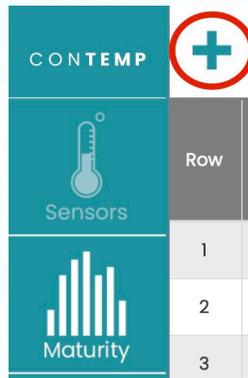
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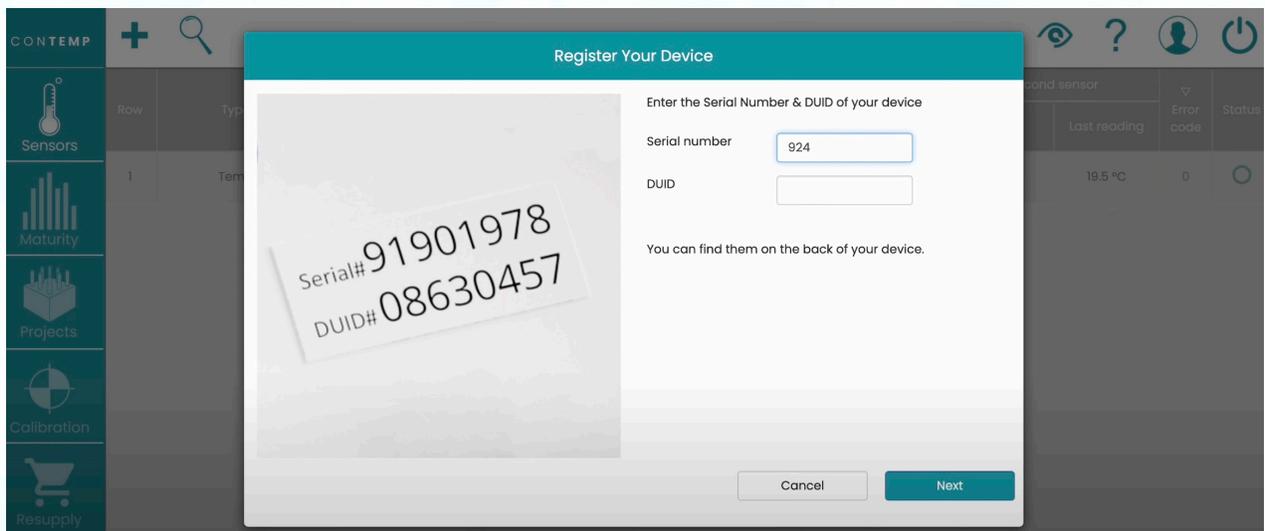
Registration Wizard

To get started visit app.contemp.live and register an account

Login to your account and select the '+' to register your device.



Enter the Serial Number and DUID that came with the device and click next to continue the Start-Up Wizard.

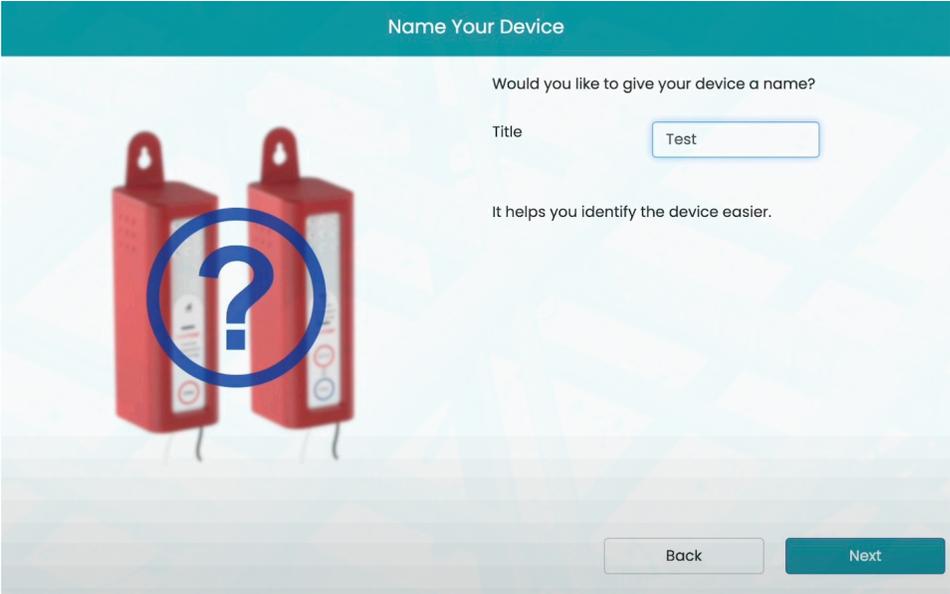


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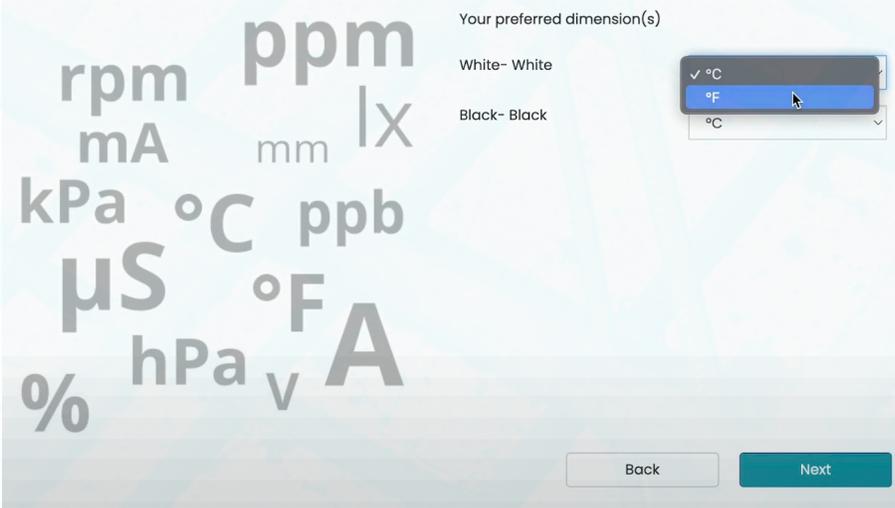
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Name your CONTEMP Device.

Proper Nomenclature will assist with keeping your projects organized.



Set the device for C° or F°



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CONTEMP is driven by alarms. When an alarm is triggered, you will be immediately notified.

Set a min/max alarm for each channel

Setting Alarms

The system will alert you if the measured parameters exceed or fall below the set limits. If you prefer not to establish alarm thresholds, simply leave the fields empty.

White (°F) - White :

Minimum Maximum

Black (°F) - Black :

Minimum Maximum

The system will alert you if the measured parameters exceed or fall below the set limits. If you prefer not to establish alarm thresholds, simply leave the fields empty.

Important Note

In order to receive text message and Phone call alarms, you need to set your cell phone number in your profile.

[Go to my profile](#)

Set your logging intervals
(Recommended: Recording - 15 min & Syncing - 6 Hours)

Intervals Settings

Recording and Syncing Intervals

Recording Interval

Syncing interval

The synchronization interval doesn't impact the speed at which you receive alarms. Alarms are sent immediately upon detection. The default values are advisable for your device. More frequent syncing can reduce battery lifespan.

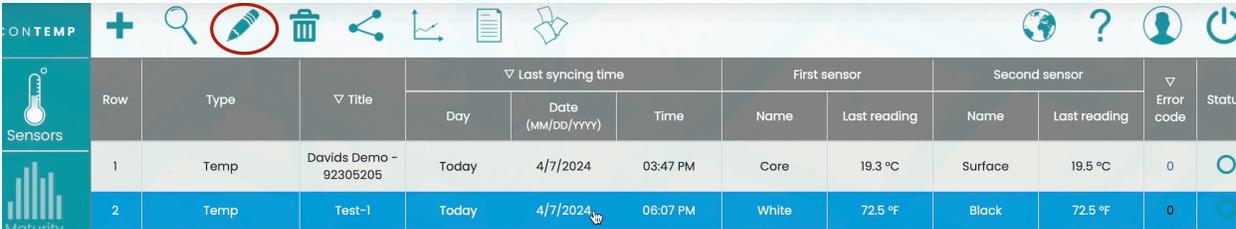
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Configure your Device

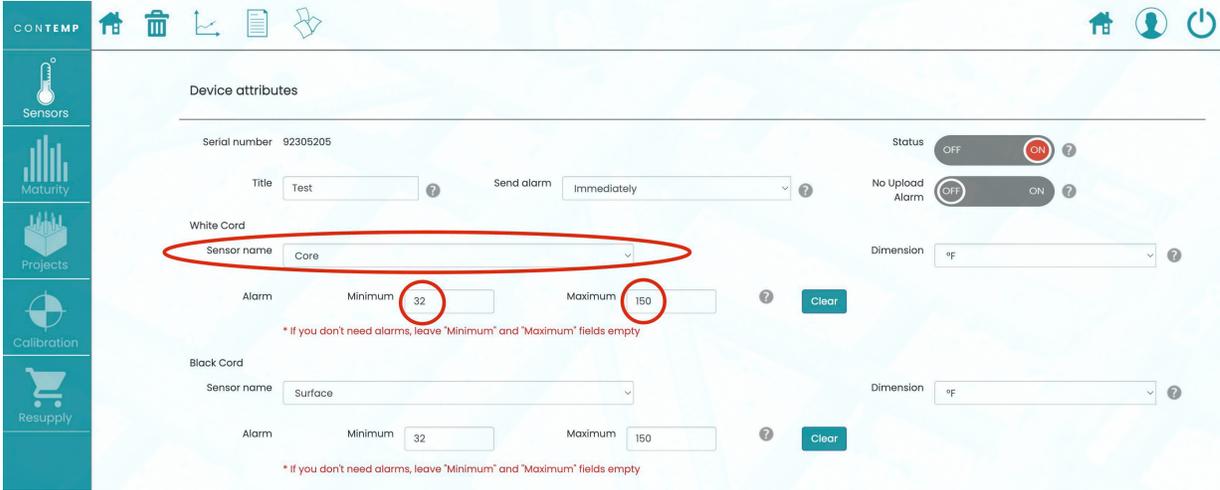
The new Logger should be listed on the dashboard.

Select the Pencil Icon from the top Menu bar to Edit the settings on the device.



Row	Type	Title	Last syncing time			First sensor		Second sensor		Error code	Status
			Day	Date (MM/DD/YYYY)	Time	Name	Last reading	Name	Last reading		
1	Temp	Davids Demo - 92305205	Today	4/7/2024	03:47 PM	Core	19.3 °C	Surface	19.5 °C	0	ON
2	Temp	Test-1	Today	4/7/2024	06:07 PM	White	72.5 °F	Black	72.5 °F	0	ON

Name each channel and ensure the Min/Max alarms you set during the wizard are correct



Device attributes

Serial number: 92305205

Title: Test Send alarm: Immediately

Status: OFF ON

No Upload Alarm: OFF ON

White Cord

Sensor name: Core

Dimension: °F

Alarm: Minimum 32 Maximum 150

* If you don't need alarms, leave 'Minimum' and 'Maximum' fields empty

Black Cord

Sensor name: Surface

Dimension: °F

Alarm: Minimum 32 Maximum 150

* If you don't need alarms, leave 'Minimum' and 'Maximum' fields empty

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Differential Alarm

During the monitoring of Mass Concrete, a sensor is typically placed at the core and near a surface. There are often specifications citing a 68°F / 20°C differential cannot be exceeded to ensure proper curing.

You may want to receive an alarm when a 59°F/ 15°C differential is exceeded between Channel 1 and Channel 2, allowing you an opportunity to proactively manage it (ie/heaters).

Absolute Differential Values

First and Second °C

First and Ambient °C

Second and Ambient °C

You can leave notes or take/upload a picture.

Intervals - Recording and Syncing frequency affect battery life. We suggest taking a reading every 15 minutes and syncing every 6 hours. If your alarms are triggered, the device will automatically sync and immediately send you the notification. If batteries are getting low, you will be sent an alarm.

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Sensors

Maturity

Projects

Calibration

Resupply

Notes

Registration date 1/19/2024

Installation location description

Location OFF ON

Upload image Upload

Comments Pile #4 50MPd

Intervals

Wi-Fi SSID / ICCID

Recording Interval 10 Minutes

Syncing Interval 3 Hours

Trend Monitoring (Drift Detection)

First sensor

Increment (%)

Reduction (%)

Maximum past hours

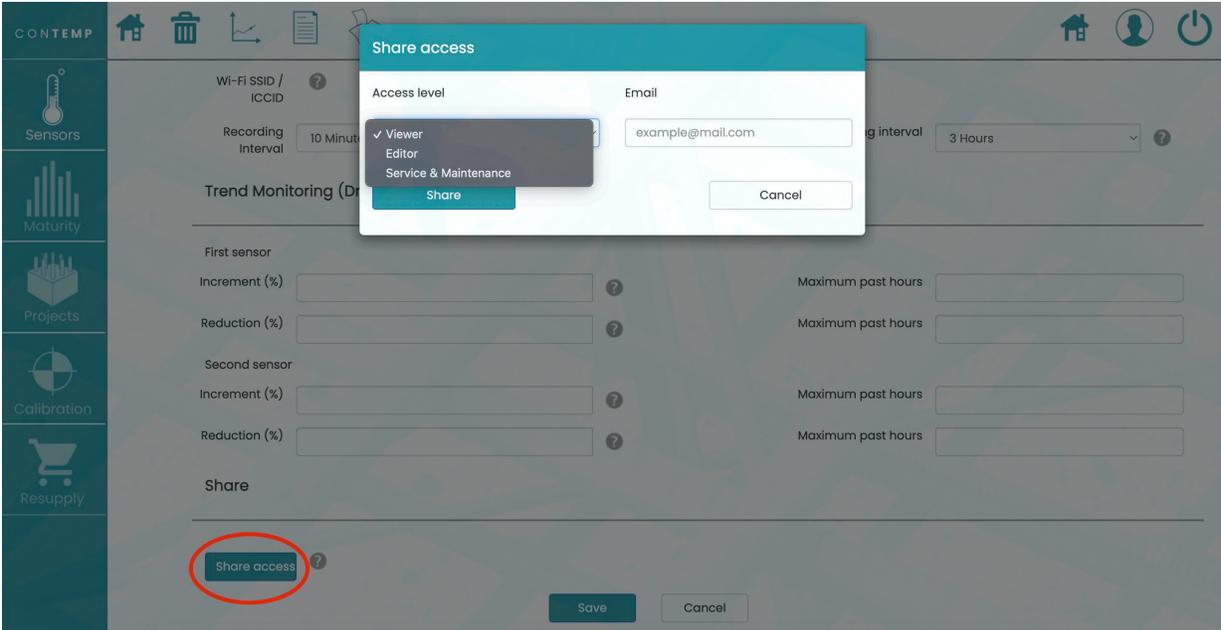
Maximum past hours

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Trend Monitoring - Allows you to set an alarm for a Percentage of Change.

Share Access - Allows you to share data with different levels of permissions with people in and outside your organization.



You can also share data from your logger using the share icon on the top menu bar.



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Graphical Data

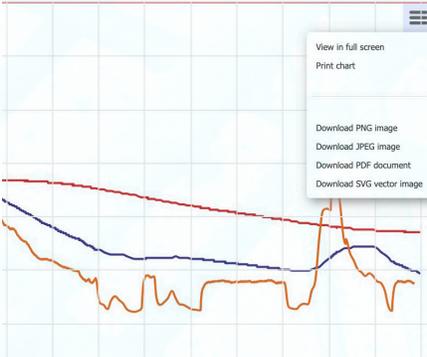
To view the data graphically, select a logger and then the graph from the top menu.



You can view specific time periods:



Or export in different formats.



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View Data

To view the Raw Data, select the 'Details' icon from the Top Menu.



This is how the raw data is displayed:

Row	Day	Date (MM/DD/YYYY)	Time	Core (°C)	Surface (°C)	Sensors difference - °C	Ambient Temp (°C)	Error
1	Tuesday	6/4/2024	09:50 PM	28.7	23.5	5.2	15.4	No error
2	Tuesday	6/4/2024	09:49 PM	28.7	23.5	5.2	14.6	No error
3	Tuesday	6/4/2024	09:48 PM	28.7	23.5	5.2	14.6	No error
4	Tuesday	6/4/2024	09:48 PM	28.7	23.5	5.2	13.6	No error
5	Tuesday	6/4/2024	09:47 PM	28.7	23.5	5.2	13.6	No error
6	Tuesday	6/4/2024	09:47 PM	28.7	23.5	5.2	12.8	No error
7	Tuesday	6/4/2024	09:46 PM	28.7	23.5	5.2	12.8	No error
8	Tuesday	6/4/2024	09:27 PM	28.7	23.7	5	19.4	No error
9	Tuesday	6/4/2024	09:26 PM	28.7	23.7	5	19.4	No error
10	Tuesday	6/4/2024	09:26 PM	28.7	23.7	5	19.5	No error

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Reports

The last tab on the top menu is the Reports tab.



There are various reports and ways to view the data.

This is also where you can export all of the raw data to Excel.

Row	Time	Date (MM/DD/YYYY)	Day	White (°C)	Black (°C)	Ambient Temp	Error code
1	11:50 PM	6/4/2024	Tuesday	31.2	31	18.4	0
2	11:20 PM	6/4/2024	Tuesday	31.2	31	18.4	0
3	10:49 PM	6/4/2024	Tuesday	31.2	31	18.5	0
4	10:19 PM	6/4/2024	Tuesday	31.2	31	18.9	0
5	9:49 PM	6/4/2024	Tuesday	31.2	31	19.2	0
6	9:19 PM	6/4/2024	Tuesday	31.2	31	19.6	0
7	8:49 PM	6/4/2024	Tuesday	31.2	31	19.8	0
8	8:19 PM	6/4/2024	Tuesday	31.2	31	20.4	0
9	7:49 PM	6/4/2024	Tuesday	31.2	31	20.6	0
10	7:19 PM	6/4/2024	Tuesday	31.2	31	21.1	0

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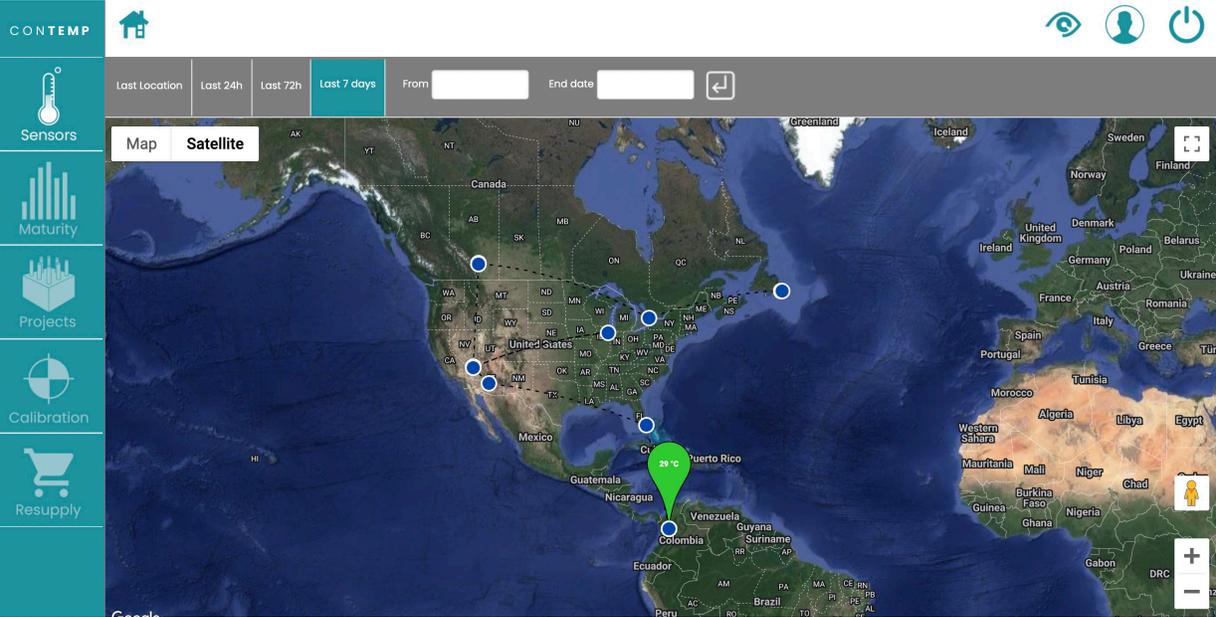
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Geolocating

Select a sensor and select the 'Globe' icon on the top right menu.

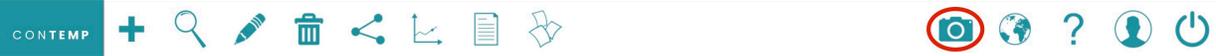


You can now view the approximate location of the logger on google maps.



View Photo

Select a sensor that has a photo uploaded. Click the 'Eye' icon on the top right menu.



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Maturity Overview

The maturity module in CONTEMP calculates strength development based on temperature history and a defined calibration curve as called for by ASTM C1074.

How it works:

Calibration Curve Definition

The calibration curve represents the relationship between temperature history and concrete strength. Users input lab-tested strength data into the system, either manually or by uploading an Excel file. The system automatically stores and applies the calibration curve for future projects.

Maturity Calculation

CONTEMP continuously monitors concrete temperature and applies maturity equations (Time Factor / Nurse-Saul) to estimate strength development. The system tracks cumulative temperature exposure over time to determine concrete curing progress.

Project Tracking Dashboard

Displays ongoing and completed projects, showing:

Current maturity level based on temperature history.

Target strength required for project completion.

Estimated time remaining until full strength is achieved.

Users receive automatic notifications once the concrete reaches its specified strength.

Comprehensive Maturity Reports

Users can generate reports that include:

Daily strength development progress.

Temperature readings from all sensors involved in the project.

The applied calibration curve and corresponding calculations.

Reports are available in PDF and Excel formats and include any images or project notes added by the user.

CONTEMP Online Application

How to Download Concrete Maturity Report

Maturity Notification



TEXT



EMAIL

Smart Notifications: Automatic email and text alerts are sent to all project team members once the final strength is reached.

"My Profile" Page

Customer Company Name

Customer Company Logo

Reports are automatically generated in both PDF and Excel formats.

Select Project

Projects Tab

Row	Title	Status	Progress %	Current Strength	Target Strength	Est. Time to Completion	Maturity	Last reading			Start date			Contemp
								Day	Date	Time	Day	Date	Time	
1	Multi 2	✓	100	20.0	20.0 MPa	Completed	5,000 C°hr	Wednesday	7/23/2025	06:29 PM	Tuesday	7/15/2025	08:41 AM	CONTEMP
2	Multi Day	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Friday	7/18/2025	12:35 AM	Tuesday	7/15/2025	08:00 AM	CONTEMP
3	Keith Pour	↻	0	0.0	3.6 MPa		0 C°hr				Thursday	3/6/2025	02:20 PM	Meijer 148 - Will Call 1
4	Disconnect Test 2	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Sunday	11/24/2024	01:00 AM	Saturday	11/23/2024	11:22 AM	92406001
5	Disconnect	⚠	8	4.0	50.0 MPa	-	40 C°hr	Tuesday	11/19/2024	11:32 AM	Tuesday	11/19/2024	09:55 AM	92406074
6	Final repeat with Block	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Monday	11/18/2024	12:51 AM	Sunday	11/17/2024	01:07 PM	92406074
7	Final	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Monday	11/18/2024	08:46 AM	Sunday	11/17/2024	01:07 PM	92406074
8	15 min test	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Saturday	11/16/2024	11:38 PM	Saturday	11/16/2024	11:22 AM	92406074
9	repeat Pro 1	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Saturday	11/16/2024	07:58 AM	Friday	11/15/2024	07:59 PM	92406074
10	Pro 1	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Saturday	11/16/2024	08:09 AM	Friday	11/15/2024	07:59 PM	92406074
11	New1 test log	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Thursday	11/14/2024	05:33 AM	Wednesday	11/13/2024	05:45 PM	92406074
12	New2 test log	✓	100	7,252	7,252 Psi	Completed	540 F°hr	Thursday	11/14/2024	05:43 AM	Wednesday	11/13/2024	05:45 PM	92406074
13	NEW2	✓	100	7,252	7,252 Psi	Completed	540 F°hr	Wednesday	11/13/2024	11:24 PM	Wednesday	11/13/2024	11:34 AM	92406074
14	NEW1	✓	100	50.0	50.0 MPa	Completed	300 C°hr	Wednesday	11/13/2024	11:05 PM	Wednesday	11/13/2024	11:23 AM	92406074

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Concrete Maturity Report Structure

Customer Company Logo (Configured in "My Profile"- logo size: 400x400 px) Customer Company Name (Configured in "My Profile") Project Image

Project Title
Pour Title

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Multi 2

Pour # A-9

Start date 7/15/2025 8:41:00 AM
End date 7/23/2025 6:29:36 PM
Duration 8 Days and 9 Hours

Final Strength 20.00 MPa
Calibration (mix) NEW Auto

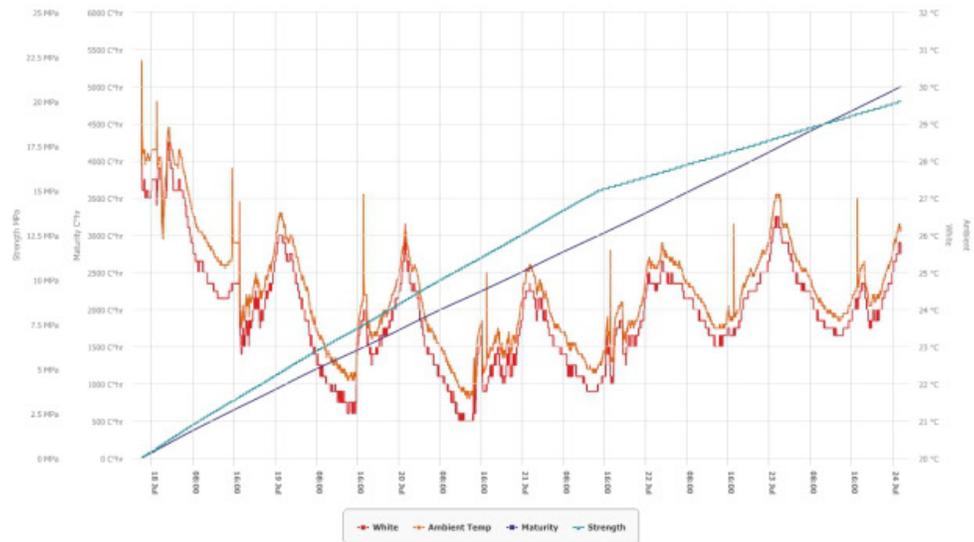


loggerflex

Date	Min Temp (°C)	Time of Min	Max Temp (°C)	Time of Max	Maturity (C°hr)	Strength (MPa)
07-17-2025	26.0	19:05	30.3	14:56	337	1.7
07-18-2025	22.8	10:19	26.2	00:00	1,168	5.8
07-19-2025	21.2	06:54	26.0	18:09	1,962	9.8
07-20-2025	21.0	04:36	24.7	18:24	2,745	13.7
07-21-2025	21.8	05:30	25.3	19:59	3,544	16.4
07-22-2025	23.0	06:11	26.5	18:04	4,370	18.4
07-23-2025	23.3	05:28	25.8	18:06	5,000	20.0

Daily Summary:
Key data from each curing day is summarized in a single line, covering the full curing period.

Project Overview:
Complete timeline with temperature, maturity, and strength progression charts.





Field Installation

Once your logger has been configured and appears synced in the dashboard, it is ready.

It is safe for outdoor use to temperatures as low as $-30^{\circ}\text{C}/-22^{\circ}\text{F}$.

Secure one sensor near the core and one near the surface. Label each channel properly (Page 5)



The first 2" / 50mm of cable (BNC - Female) permanently attached to the device DOES NOT go into the Concrete

Up to 4 x 3m extension cables can be added to each channel if required for larger structures. Since these are digital cables, make sure to match the number of extension cables used in each channel.

