

GA 5000

Formaldehyde Emissions Analysis Using EN 717-2 Standard (CARB Compliance)



GreCon®

Construction of the GA 5000

The measuring device is supplied as complete laboratory system, including all necessary accessories. The plug-and-play device in a table-top housing incorporating a dual measuring chamber and all components that are necessary for measurement. Only the wash bottles are placed outside the device for easy replacement.

The GA 5000 system is operated by an intuitive touch screen display. To ensure correct and repeatable tests, the device uses modern digital components to monitor flow rate, temperature and pressure. These components provide a more detailed display and verification of the operating parameters.

Measuring Principle

The gas analysis method according to DIN EN 717-2 is a quick measuring method in which the formaldehyde emissions of wood based panels are measured for four hours at 60 °C. The formaldehyde emission is indicated in mg/m²h and refers to the unsealed total surface of the test samples. The edges of the samples are sealed prior to testing.

The filtered and pre-dried airflow in the measuring chamber is 60 l/h. The air with the formaldehyde emitted by the test sample is fed from the measuring chamber into a pair of eight wash bottles with water in which the formaldehyde is filtered for a time period of one hour each. Afterwards, the formaldehyde content is spectrophotometrically determined by means of the acetylacetone method at a wave length of 412 nm.

**Approved as an alternative test method
by the California Air Resources Board
(CARB)**

LabCheck ONLINE

LabCheck ONLINE is a laboratory proficiency system for wood product testing laboratories. For laboratories which need to provide reliable data, LabCheck ONLINE online ensures that results are correct and similar to other laboratories around the world.

LabCheck ONLINE gives instant feedback after each laboratory finishes testing, unlike traditional round robins which typically take months to collate results and provide feedback.

Real-time reporting makes instant analysis of the test results possible. Immediately after entering the data, the results can be compared against the reference laboratory, which eliminates the customary delays associated with inter laboratory trials. This means, you can react immediately if the results indicate a problem in your laboratory, thus improving the overall test consistency.



photospectrometer

When the test period ends, a full report is generated and can be retrieved from the report archives. LabCheck ONLINE incorporates a powerful graphing facility, giving users the ability to view data either in table form or graphed against other participants. The system also utilizes reference test values from TimberTest, an internationally accredited laboratory. After start-up, you will automatically receive test samples three times a year.

Technical Specifications

- Test standard: EN 717-2
- Material: wood based panels
- Test sample: 400 mm x 50 mm x panel thickness
- Testing time: 4 hours heating-up time
..... of the chamber + analysing time
- Flow rate accuracy: ± 3 l/h
..... at 60 l/h
- Temperature accuracy: ± 0.3 °C at 60 °C
- Pressure accuracy: ± 30 Pa
..... between 1000 Pa and 1200 Pa



measuring chamber

Why GreCon



- Fast analysis of formaldehyde emissions in the laboratory
- Fast detection of effects of product changes
- Reliable measured values
- Flexible use for different products
- LabCheck reference measurement
- Low maintenance required

Your Benefit



- Formaldehyde emission analysis according to EN 717-2 in only a few hours
- Approved as alternative test method by the California Air Resources Board (CARB)
- Simultaneous measurement of two samples
- Process and quality control
- Significant correlations with reference methods according to EN and ASTM



wash bottles



OUR HEADQUARTERS AT ALFELD - BUILT BY WALTER GROPIUS IN 1911

GreCon

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