

Composite Wood Products Regulation – Formaldehyde Test Methods

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Overview

- Background
- Comparison of CARB & U.S. EPA regulations
- Formaldehyde testing
- Panel producer QC test methods
- Alternative QC test methods
- Plans & timeline to amend CARB regulation
- Questions



Background

- CARB's Composite Wood Products Airborne Toxic Control Measure (ATCM) to reduce public exposure to airborne formaldehyde became effective January 2009
- Established formaldehyde emission standards for three composite wood products (hardwood plywood, particleboard, and medium density fiberboard)
- Requires use of compliant products in finished goods (e.g., furniture, flooring, & cabinets)
- Requires labeling, statements of compliance on shipping documents, & record keeping

Comparison of CARB & U.S. EPA Regulations

- EPA Toxic Substances Control Act (TSCA) Title VI regulation fully in effect as of March 2019
- All products sold in U.S. must be TSCA-compliant and labeled as such
- CARB accepts TSCA labeled products
- Some differences between CARB & TSCA; whichever is most stringent applies in California
- Ongoing interaction with EPA
- CARB maintains & enforces California regulation

Formaldehyde Testing

- Composite wood product panel producers required to be third-party certified
- CARB-approved third-party certifiers (TPCs) required to conduct quarterly inspections & tests
- TPCs have two options for testing
 - Primary method (ASTM E1333 – large chamber)
 - Secondary method (ASTM D6007 – small chamber, established as providing equivalent results to E1333)
- Panel producers required to conduct routine quality control (QC) testing

Panel Producer QC Test Methods

- CARB regulation specifies two methods
 - ASTM D5582 (desiccator)
 - ASTM D6007 (small chamber)
- Alternative QC test methods (optional)

Alternative QC Test Methods

- Must apply to CARB for approval prior to use
- If approved, may be used by any panel producer
- Must be shown to correlate to primary or secondary method operated by CARB-approved TPC or subcontract laboratory
- Correlation must be based on minimum of five data pairs
- Data must be in concentration range of applicable formaldehyde emission standard for requested products (e.g., 0.01-0.13 ppm)
- Data must be from testing of composite wood products
- Methods approved for all composite wood products (one exception)

Alternative QC Methods (continued)

- To date, CARB has approved of the following:
 - ISO 12460-3 (European gas analysis method)
 - ISO 12460-5 (European perforator method; not approved for hardwood plywood)
 - Dynamic Microchamber (DMC)
 - GP™ DMC
 - JIS A1460 (24-hour desiccator)
 - Near infrared (NIR) method (later withdrawn at request of applicant after additional data showed inconsistent results)

Plans & Timeline to Amend CARB Regulation

- Amendments being considered
 - Reduce emissions of additional products
 - Some types of children's furniture
 - Cork flooring
 - Improve enforceability & better ensure compliance of imported products
 - Align with EPA regulation, where appropriate
- Timeline (tentative - delayed due to pandemic)
 - Industry workgroup meetings – late summer 2022
 - Public workshop - late 2022
 - Presentation to CARB Board - 2023

Questions

- [Lynn Baker](#)
or [Compwood](#)
- [Composite Wood Products ATCM website](#)

