



Thank you very much for your inquiry. We understand your concern and appreciate how important good indoor air quality is to you. As a licensed Third Party Certifier (TPC) for the California Air Resources Board (CARB) composite wood program, (CARB TPC 2), we would be happy to assist you with your testing needs, and explain to you some of your options and what they may mean to you.

CARB certifies specific types of products, generally what the industry looks at as raw material: plywood, medium density fiberboard (MDF) and particleboard. For a product to be CARB certified it must meet both an emissions level standard and a documentary burden and the mill producing the panel must be certified by an accredited CARB TPC.

Flooring is not a regulated product under CARB. A floor which is produced with certified material and meets a documentary chain of custody burden is considered "compliant." We encourage you to review the following material provided by CARB:

http://www.arb.ca.gov/html/fact_sheets/composite_wood_flooring_faq.pdf

http://www.arb.ca.gov/toxics/compwood/consumer_faq.pdf

An Explanation of Testing Options

Benchmark can provide you with indicator tests that will be done to the same standards and procedures as a CARB test; however we are not allowed to call these "CARB certification" tests, as certification is a specific process for specific products. an on-site, in-depth ongoing process. As there are many types of flooring construction and materials, we have the following indicator tests that we hope will be meaningful to a homeowner no matter what type of floor is being tested. These tests can be performed on all types of engineered and laminate flooring.

Finished Flooring Indicator 1 (Room Use): Testing is done to the final product as if the flooring was installed in the home. We expose only the primary face (we tape two pieces back to back), so we look only at emissions coming through the finished surface. We will test utilizing the "hardwood plywood loading ratio" as found within the CARB regulation. You can select this test for ANY type of flooring.

Finished Flooring Indicator 2 (CARB Comparative): Testing is done on the flooring as a finished product, but both backside and face surfaces are exposed which mimics how CARB looks at regulated panels and allows for maximum emission collection from the entire piece. We will test utilizing the "hardwood plywood loading ratio" as found within the CARB regulation. You can select this test for ANY type of flooring or wood composite product such as cabinetry.

CARB Deconstructive Testing: This is the method referenced in the 60minutes story and is used by CARB as an enforcement tool to look at some finished products. We currently only offer this test on laminate flooring as it is not practical to "deconstruct" a plywood or lumber core floor at this time. Laminate flooring is a product with a paper face and back on an MDF core. We will sand off the laminate surfaces (paper on the face and back of the floor sample) to test the underlying MDF Core. We will follow established CARB protocols for deconstructive testing for laminate flooring and test according to the MDF thickness.



Record Keeping Options

Report Date: 6/8/2016
Product: [Redacted]
Report of: CARB OGA Sample
Report to: [Redacted]
Company: [Redacted]
Reporting Lab: Benchmark Holdings, LLC
 2716 West 5th Avenue, Eugene, OR 97402 USA
 Phone: 541/484-9212 - Fax: 541/344-2751

ASTM D5507 Determining Formaldehyde Emissions Using Small Chamber

Chamber Results		Production Data	
Impinger:	81	Product:	[Redacted]
Observed Flow Rate (L/min):	1.500	Mfg Code:	[Redacted]
Corr. Vol. of Air Sample (L):	30.669	Prod. Date:	27-Jun-14
Raw Absorbance Values:	0.020	Control Date:	NS
	0.012	Test Date:	6-Mar-16
	0.012	Coll. Date:	NS
Average Absorbance:	0.012	CHAMBER ID#:	3
Unadjusted PPM:	0.032	Chamber Condition:	
Temp. Correction Factor (PPM):	0.88	Equilibrating Pressure (psi):	30.50
R.H. Correction Factor (PPM):	1.64	Dry Bulb Temp. (°F):	77.20
Minimum PPM: Phase 2 (1.61)	0.033	Relative Humidity (%):	47.50
		Length of PPM (minutes):	30.00

Parameters:
 Loading Ratio: 0.130
 Chamber Dimensions: 48215m x 48215m x 48215m
 Air Exchange Rate: 12.50 / 12.50 air changes per hour
 Volume = 1151883m³

Comments:
 Sample passes CARB Phase 2 standard. *Product is laminate flooring, tested using loading ratio for HRP/W, and taping double specimens back to back in order to test finished side only.

Signature:
 Respectfully Submitted,
 Benchmark Holdings LLC
 Travis R. Orsag
 Managing Director / COO
 Benchmark International LLC

Benchmark will produce a report that provides a final emissions number. The report will specify testing parameters and the comment section will note any special conditions such as if this was a deconstructive test. We may add comments based on the information you supplied on your submission form.

The sample will be identified as per your description on your sample submission form ("Product Name").

If additional documentation is required, we can take pictures of your product or scan in your submission form and amend it to the report so that all the information is one form for your records. As these take additional time, we do have to charge for these services.

For the majority of clients, this is generally not considered necessary, but some do request the convenience of expanded reports with the further documentation of the submission.

We offer two record keeping options as standard. If you have wish to request additional work, please send us an email outlining your requirements.

- 1. Single Photograph:** We will take a single photograph of your sample side by side with your submission sheet before processing and place this into the report. It will connect your submission with the report being generated.
- 2. Procedure Documentation:** We will take at least three pictures showing a) your sample and submission sheet together, b) your shipping label, c) your sample in the chamber. In addition, if you have sent a full box of material, rather than single cut samples, we will take a picture of the box prior to opening the box to pull samples. If the sample is being deconstructed, we will document the before/after appearance of the sample. The report may contain 3-8 pictures depending on what work is being done and type of samples sent to us.

Costs for sample documentation are:

Single Photograph of your sample & submission sheet	\$20/sample
Procedure Documentation (3-8 photographs)	\$60/sample



Understanding the Results

For any of the three tests, we will email you a report showing the emission readings for your floor in parts per million (ppm), which is how CARB presents its findings. You may compare your findings to the chart below for CARB products.

	Hardwood Plywood	MDF (over 8mm thick)	tMDF (8mm or less)	Particleboard
CARB Emission Limit	0.05ppm	0.11ppm	0.13ppm	0.09ppm

In addition, these are other standards or limits of formaldehyde emissions:

- World Health Organization: Below 0.10 ppm
- European E1 Standard: Below 0.10 ppm
- US Department of Labor (OSHA) permissible exposure level (PEL) in the workplace 0.75 ppm (8 hour Time Weighted Average (TWA))
- OSHA Hazard Communication Standard: Hazard warning labels are required on any manufactured product that may emit 0.10 ppm or greater

It is difficult to determine the original compliance of the raw panel in regards to the regulation due to multiple variables that impact the formaldehyde emissions from a finished product, be it flooring or cabinetry or furniture. CARB and EPA are currently evaluating the creation of a standard maximum limit for most types of finished products. Although it has not been finalized, both CARB and the EPA are considering setting 0.13ppm as the appropriate emissions limit for finished products, a number you may wish to keep in mind when you receive your test results.

- We will not be able to any environmental, health or performance claims based on your results nor will we be able to provide guidance and/or advice on the possible actions available to you.
- If the result is a “FAIL,” that does NOT mean an immediate health hazard exists. Further investigation may be warranted, depending on the product tested, method of testing, and the actual result.
- A “fail” does not automatically mean that a product is not CARB compliant. The final determination of compliance can only be done by the enforcement body, the California Air Resources Board.



Submission Instructions

Test Type	Required Sample Size	Sample Location
Finished Flooring Indicator 1 (Room Use)	2pc x 20" (510mm) length of flooring per test	Cut from the middle of the floor plank if possible.
Finished Flooring Indicator 2 (CARB Comparative)	1pc x 20" (510mm) length of flooring per test	
Deconstruction Test on Laminate	1pc x 20" (510mm) length of flooring per test	

We do NOT require a full box of material and we can process samples more quickly if they are already cut to size. Thank you.

Wrapping Instructions: Print and complete Sample Submission form below. Please submit one sheet with each sample you are sending. (If you wish to submit material for blind test studies for any reason, you do not have to complete all fields of the submission sample form. However you must give us some form of reference name or number that we can use to identify the sample.) Please place the completed Submission Sheet on top of the floor sample where it can be read without unwrapping the sample, and wrap both together tightly in plastic—**make sure the plastic fully covers the samples, all around and the ends. You do not want any part of the samples exposed to air.** Do not write on the samples. Do not tape together the samples or tape the paper to the sample—simply wrap the paper and samples together. Ordinary kitchen plastic wrap is fine, and **multiple layers of plastic is recommended.**

Please complete and sign the "Order Form" below and send it and a check with your wrapped sample and submission form to:

Benchmark International
Attn: Consumer Testing Department
2710 West 5th Ave.
Eugene, OR 97402
Tel: 1.541.484.9212
admin@benchmark-intl.com

Samples cannot be processed without both forms being completed and signed, and a check enclosed. We regret that we do not accept credit cards.

Note: For all testing, turn around is expected to be approximately six to eight weeks from receipt. (There is a limit to the speed of testing, as the protocol requires a 7 day conditioning period.) Unless advance arrangements have been made, samples will not be returned and will be discarded 30 days after the testing has been completed.

Thank you for your business and allowing us to be of service to you.

The Benchmark Team



ORDER FORM

By signing the following and sending in samples, **CLIENT** is requesting Benchmark to perform the specified test and agrees to include payment in full with submission of material to be tested.

Please make the check out to BENCHMARK HOLDINGS. Insufficient payment and bounced checks will incur a fee of **\$25**. In addition, the following terms and conditions apply: {see page "General Conditions"}.

CALCULATION OF FEES AND OTHER CHARGES

Type	Price	Quantity Ordered	Total
Deconstructed Samples (laminates only)	\$590.00		
Finished Flooring Indicator 1 (Room Use)	\$525.00		
Finished Flooring Indicator 2 (CARB Comparative)	\$525.00		
Additional Services (option of one per sample)			
Single Photograph of sample & submission sheet	\$20		
Procedure Documentation (3-8 photographs)	\$60		
Totals:			

CLIENT CONFIRMATION _____ DAY OF _____, 2015

BY (PLEASE PRINT) _____

TITLE _____ COMPANY _____

SIGNATURE _____

Benchmark International thanks you for your business,

Travis R. Snapp
Managing Director



GENERAL CONDITIONS:

1. PARTIES AND SCOPE OF WORK: Benchmark Holdings (hereinafter referred to as "BMH") shall include said company or its particular division, subsidiary or affiliate performing the work. "Work" means the specific International Accreditation Service (IAS) and International Code Council Evaluation Service (ICC-ES), State of Florida (SF) and other related services to be performed by BMH as set forth in BMH's proposal, Client's acceptance thereof and these General Conditions. Additional work ordered by Client shall also be subject to these General Conditions. "Client" refers to the person or business entity ordering the work to be done by BMH. If Client is ordering the work on behalf of another, Client represents and warrants that it is the duly authorized agent of said party for the purpose of ordering and directing said work. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the work ordered by the client is adequate and sufficient for Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom Client transmits any part of BMH's work. BMH shall have no duty or obligation to any third party greater than that set forth in BMH's proposal, Client's acceptance thereof and these General Conditions. The ordering of work from BMH, or the reliance on any of BMH's work, shall constitute acceptance of the terms of BMH's proposal and these General Conditions, regardless of the terms of any subsequently issued document.

2. INSPECTIONS & CONSULTING: Client shall cause all inspections and consulting documents and work performed by BMH or others to be timely and properly performed in accordance with the requirements of IAS, ICC-ES, SF and other related requirements, specifications and contract documents and BMH's recommendations. No claims for loss, damage or injury shall be brought against BMH by Client or any third party unless all tests and inspections have been so performed and unless BMH's recommendations have been followed. Client agrees to indemnify, defend and hold BMH, its officers, employees and agents harmless from any and all claims, suits, losses, costs and expenses, including, but not limited to, court costs and reasonable attorney's fees in the event that all such tests and inspections are not so performed or BMH's recommendations are not so followed except to the extent that such failure is the result of the negligence, willful or wanton act or omission of BMH, its officers, agents or employees, subject to the limitation contained in paragraph nine.

3. SCHEDULING OF WORK: The services set forth in BMH's proposal and Client's acceptance will be accomplished in a timely, workmanlike and professional manner by BMH personnel at the prices quoted. If BMH is required to delay commencement of the work or if, upon embarking upon its work, BMH is required to stop or interrupt the progress of its work as a result of changes in the scope of the work requested by Client, to fulfill the requirements of third parties, interruptions in the progress of construction, or other causes beyond the direct reasonable control of BMH, additional charges will be applicable and payable by Client.

4. ACCESS TO SITE: Client will arrange and provide such access to the site as is necessary for BMH to perform the work. BMH shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as the result of its work or the use of its equipment; however, BMH has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires BMH to restore the site to its former condition, upon written request BMH will perform such additional work as is necessary to do so and Client agrees to pay to BMH for the cost.

5. CLIENT'S DUTY OF NOTIFICATION: Client represents and warrants that it has advised BMH of any known or suspected hazardous materials, utility lines and pollutants at any site at which BMH is to do work hereunder, and unless BMH has assumed in writing the responsibility of locating subsurface objects, structures, lines or conduits, Client agrees to defend, indemnify and save BMH harmless from all claims, suits, losses, costs and expenses, including reasonable attorney's fees as a result of personal injury, death or property damage occurring with respect to BMH's performance of its work and resulting to or caused by contact with machinery, products or other subsurface or latent objects, structures, lines or conduits where the actual or potential presence and location thereof were not revealed to BMH by Client.

6. RESPONSIBILITY: BMH's work shall not include determining, supervising or implementing the means, methods, techniques, sequences or procedures of manufacture or fabrication. BMH shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare. BMH's work or failure to perform same shall not in any way excuse any manufacturer, fabricator, subcontractor or supplier from performance of its work in accordance with the contract documents. BMH has no right or duty to stop work.

7. SAMPLE DISPOSAL IF APPLICABLE: Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test.

8. PAYMENT: Client shall be invoiced once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause in writing within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law), until paid. Client agrees to pay BMH's cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees. BMH shall not be bound by any provision or agreement requiring or providing for arbitration of disputes or controversies arising out of this agreement, any provision wherein BMH waives any rights to a mechanic's lien, or any provision conditioning BMH's right to receive payment for its work upon payment to Client by any third party. These General Conditions are notice, where required, that BMH shall file a lien whenever necessary to collect past due amounts. Failure to make payment within 30 days of invoice shall constitute a release of BMH from any and all claims which Client may have, whether in tort, contract or otherwise, and whether known or unknown at the time.

9. WARRANTY: BMH'S SERVICES WILL BE PERFORMED, ITS FINDINGS OBTAINED AND ITS REPORTS PREPARED IN ACCORDANCE WITH IAS, ICC-ES, SF, OTHER RESATED SERVICES AND ITS PROPOSAL, CLIENT'S ACCEPTANCE THEREOF, THESE GENERAL CONDITIONS, AND WITH GENERALLY ACCEPTED PRINCIPLES AND PRACTICES. IN PERFORMING ITS PROFESSIONAL SERVICES, BMH WILL USE THAT DEGREE OF CARE AND SKILL ORDINARILY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY MEMBERS OF ITS PROFESSION. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATIONS, EITHER EXPRESS OR IMPLIED. STATEMENTS MADE IN BMH REPORTS ARE OPINIONS BASED UPON JUDGMENT AND ARE NOT TO BE CONSTRUED AS REPRESENTATIONS OF FACT WHEN OUTSIDE THE SCOPE OF IAS, ICC-ES, SF AND OTHER REQUIREMENTS. INSPECTION AND/OR CONSULTING REPORTS ARE REFLECTIVE OF CONDITIONS, ACTIONS AND FINDINGS, ETC., ON THE SITE AND/OR REVIEW OF DOCUMENTS RELATING TO THE CONTRACTED SERVICE.

SHOULD BMH OR ANY OF ITS PROFESSIONAL EMPLOYEES BE FOUND TO HAVE BEEN NEGLIGENT IN THE PERFORMANCE OF ITS WORK, OR TO HAVE MADE AND BREACHED ANY EXPRESS OR IMPLIED WARRANTY, REPRESENTATION OR CONTRACT, CLIENT, ALL PARTIES CLAIMING THROUGH CLIENT AND ALL PARTIES CLAIMING TO HAVE IN ANY WAY RELIED UPON BMH'S WORK AGREE THAT THE MAXIMUM AGGREGATE AMOUNT OF THE LIABILITY OF BMH, ITS OFFICERS, EMPLOYEES AND AGENTS SHALL BE LIMITED TO \$25,000.00 OR THE TOTAL AMOUNT OF THE FEE PAID TO BMH FOR ITS WORK PERFORMED WITH RESPECT TO THE PROJECT, WHICHEVER AMOUNT IS GREATER.

IN THE EVENT CLIENT IS UNWILLING OR UNABLE TO LIMIT BMH'S LIABILITY IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THIS PARAGRAPH, CLIENT MAY, UPON WRITTEN REQUEST OF CLIENT RECEIVED WITHIN FIVE DAYS OF CLIENT'S ACCEPTANCE HEREOF, INCREASE THE LIMIT OF BMH'S LIABILITY TO \$250,000.00 OR THE AMOUNT OF BMH'S FEE, WHICHEVER IS THE GREATER, BY AGREEING TO PAY BMH A SUM EQUIVALENT TO AN ADDITIONAL AMOUNT OF 5% OF THE TOTAL FEE TO BE CHARGED FOR BMH'S SERVICES. THIS CHARGE IS NOT TO BE CONSTRUED AS BEING A CHARGE FOR INSURANCE OF ANY TYPE, BUT IS INCREASED CONSIDERATION FOR THE GREATER LIABILITY INVOLVED. IN ANY EVENT, ATTORNEY'S FEES EXPENDED BY BMH IN CONNECTION WITH ANY CLAIM SHALL REDUCE THE AMOUNT AVAILABLE, AND ONLY ONE SUCH AMOUNT WILL APPLY TO ANY PROJECT. NO ACTION OR CLAIM, WHETHER IN TORT, CONTRACT, OR OTHERWISE, MAY BE BROUGHT AGAINST BMH, ARISING FROM OR RELATED TO BMH'S WORK, MORE THAN TWO YEARS AFTER THE CESSATION OF BMH'S WORK HEREUNDER.

10. INDEMNITY: Subject to the foregoing limitations, BMH agrees to indemnify and hold Client harmless from and against any and all claims, suits, costs and expenses including reasonable attorney's fees and court costs arising out of BMH's negligence to the extent of BMH's negligence. Client shall provide the same protection to the extent of its negligence. In the event that Client or Client's principal shall bring any suit, cause of action, claim or counterclaim against BMH, the party initiating such action shall pay to BMH the costs and expenses incurred by BMH to investigate, answer and defend it, including reasonable attorney's and witness fees and court costs to the extent that BMH shall prevail in such suit.

11. TERMINATION: This Agreement may be terminated by either party upon 30 DAYS' of written notice. In the event of termination, BMH shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses, and for the completion of such services and records as are necessary to place BMH's files in order and/or protect its professional reputation.

12. EMPLOYEES/WITNESS FEES: BMH's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay BMH's legal expenses, administrative costs and fees pursuant to BMH's then current fee schedule for BMH to respond to any subpoena. Client agrees not to hire BMH's employees except through BMH. In the event Client hires a BMH employee, Client shall pay BMH an amount equal to one-half of the employee's annualized salary, without BMH waiving other remedies it may have.

13. HAZARDOUS MATERIALS IF APPLICABLE: Nothing contained within this agreement shall be construed or interpreted as requiring BMH to assume the status of an owner, operator, generator, storer, transporter, treater or disposal facility as those terms appear within RCRA or within any Federal or State statute or regulation governing the generation, transportation, treatment, storage and disposal of pollutants. Client assumes full responsibility for compliance with the provisions of RCRA and any other Federal or State statute or regulation governing the handling, treatment, storage and disposal of pollutants.

14. PROVISIONS SEVERABLE: The parties have entered into this agreement in good faith, and it is the specific intent of the parties that the terms of these General Conditions be enforced as written. In the event any of the provisions of these General Conditions should be found to be unenforceable, it shall be stricken and the remaining provisions shall be enforceable.

15. ENTIRE AGREEMENT: This agreement constitutes the entire understanding of the parties, and there are no representations, warranties or undertakings made other than as set forth herein. This agreement may be amended, modified or terminated only in writing, signed by each of the parties hereto.

8-2011