



# Frequently Asked Questions about CARB's New Regulations for Formaldehyde in Composite Wood Products

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## Who is the California Air Resources Board (CARB)?

The California Air Resources Board is a department of the California Environmental Protection Agency. CARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. CARB oversees all air pollution control efforts in California to attain and maintain health-based air quality standards. Additionally, CARB predates the federal EPA and its mandates are typically the strictest in the nation; consequently, its rulings often become the de facto standard for the U.S.

## Why is CARB addressing formaldehyde emissions with this Airborne Toxic Control Measure (ATCM)?

According to government and public health agencies across the globe, formaldehyde has both cancer and non-cancer-causing effects on human health. In June of 2004, the International Agency for Research on Cancer (a part of the World Health Organization) reclassified formaldehyde as a "known human carcinogen," but California had declared formaldehyde a toxic air contaminant as far back as 1992, determining there was no safe threshold, and has been advancing this ATCM ever since. In July of 2005 CARB presented a report at the request of the California State Legislature on "Indoor Air Quality." Within this report, CARB detailed the health impacts of formaldehyde emissions, especially their

impact on the health of children, and it determined the biggest offenders to be composite wood products – specifically hardwood plywood, particleboard and medium density fiberboard (MDF).

## What products will be impacted by this regulation and when?

This ATCM affects three composite wood product categories: hardwood plywood, particleboard and MDF. Most of these products are fabricated into cabinetry, furniture, casework, flooring, shelving, moldings and countertops. For hardwood plywood, the Phase 1 veneer core category limits go into effect January 1, 2009, while limits for hardwood plywood made with composite panels such as particleboard or MDF go into effect July 1, 2009 – both capping emissions at the .08 parts per million (ppm) level. Phase 2 limits follow later at .05 ppm.

## What are the new emission standards for California and how do these compare to federal or international formaldehyde regulations?

The CARB regulation mandates a phased-in approach to emission levels, with varying implementation dates (See Formaldehyde Emission Comparison Chart on next page). Taken as a whole, CARB's ATCM for formaldehyde is the most stringent in the world, primarily because these levels represent emission caps, where other existing standards are based on averages. The U.S. has trailed efforts of Europe, Japan and Australia to limit formaldehyde emissions from these products and up until CARB's

ruling, only the HUD (Housing & Urban Development) standard related to manufactured housing existed in the U.S. The CARB hardwood plywood regulation at both Phase 1 and 2 is very strong and will immediately have impact on emissions upon the Phase 1 implementation date of January 1, 2009. The phased levels for composite panels such as particleboard and MDF incorporate a slower path, as Phase 1 levels exceed the current E-1 emission standard.

## Are finishes included in this regulation?

No, this regulation only applies to interior panel products, specifically decorative hardwood plywood, particleboard and MDF.

## Who is subject to this regulation?

This applies to composite wood manufacturers such as Columbia Forest Products, as well as importers, building products distributors, fabricators and retailers of the affected panel products. It also includes finished goods (e.g. kitchen cabinets, furniture, store fixtures) containing those products that are manufactured in and/or sold into California. In other words, goods such as kitchen cabinets made in other states or overseas are subject to this regulation.

## Are sell-through provisions included in this regulation timeline?

Yes, CARB has included varying sell-through time periods for the different parties that are subject to this regulation. These allowances affect manufacturers, importers, distributors, fabricators and

retailers. The intention is simply to allow a reasonable time period for the affected parties to clear out non-compliant inventory, especially as it relates to slow selling finished goods. The sell-through tables included in this document comprise all the sell-through time periods for each phase of the regulation. In 2009, CARB announced extensions to the sell through provision in their Regulation Advisories. The most current dates are reflected on the sell-through table on page 4. Or you can check the California Air Resources Board web site for additional updates: [www.arb.ca.gov/toxics/compwood/compwood.htm](http://www.arb.ca.gov/toxics/compwood/compwood.htm).

It is important to note, once a regulation phase begins, all hardwood plywood, particleboard or MDF manufactured for sale or fabrication in or into the state of California must comply with the applicable emission cap.

For example, as of January 1, 2009, all veneer core hardwood plywood that is manufactured and destined for California – be it import or domestic, raw panel or finished good – must meet the 0.08 ppm emission level.

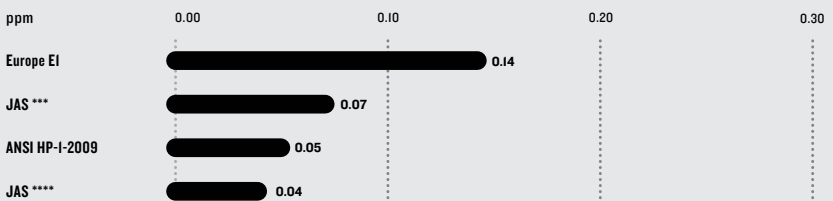
**How will CARB enforce this regulation?**  
This regulation applies to both domestic and imported composite wood products, with the burden of responsibility for compliance falling on the manufacturers and importers of these products. To ensure compliance, panel manufacturers will have to be “third-party certified,” which requires independent emission testing of panels using the industry standard large chamber test, ASTM E-1333. Manufacturers will need to provide documentation of compliance and label products accordingly – similar to the Forest Stewardship Council’s chain of custody procedures. Compliant materi-

CARB Phase One (P1) and Two (P2) Emission Standards (ppm)					
<i>Effective Date</i>					
	HWPW-VC	HWPW-CC	Particleboard	MDF	Thin MDF
01/01/2009	PI: 0.08		PI: 0.18	PI: 0.21	PI: 0.21
07/01/2009		PI: 0.08			
01/01/2010	P2: 0.05				
01/01/2011			P2: 0.09	P2: 0.11	
01/01/2012					P2: 0.13
07/01/2012		P2: 0.05			

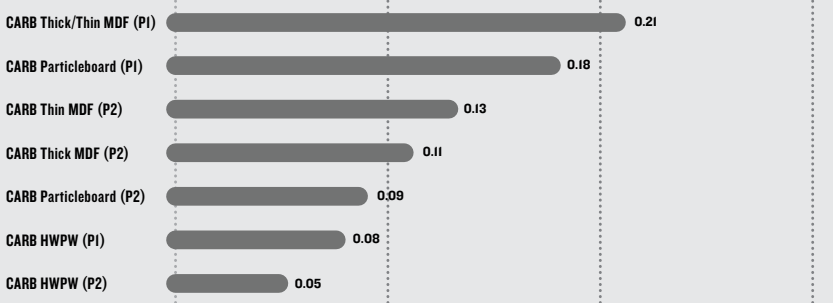
HWPW = Hardwood Plywood    VC = Veneer Core    CC = Composite Core    MDF = Medium Density Fiberboard

## FORMALDEHYDE EMISSION LINE COMPARISON CHART

Foreign standards normalized to ASTM E-1333 large chamber test method



### CARB Phase 1 and Phase 2 emission limits for raw MDF, raw particleboard and veneer core hardwood plywood



**PureBond**. Veneer core hardwood plywood meets CARB Phase 2 today.

als must be used for the fabrication of all finished goods (e.g. cabinetry, furniture, casework). The enforcement of this regulation will be far reaching. Should a non-compliant panel or finished good – domestic or import – be detected during random testing by CARB’s enforcement division, steep financial penalties and selling restrictions for manufacturers in California in the future are among enforcement alternatives available to regulators.

**If I am doing business in California, what will be the requirement for compliance?**  
CARB staff is still working out further details of their enforcement plan, but currently all parties affected by this regulation are required to obtain and keep written records from suppliers that indicate the products purchased meet the applicable emission standards. Distributors are also required to provide a written statement on the bill of lading or invoice that states the composite wood product or

finished good being sold complies with the applicable emission level. There is a sell-through provision allowing distributors to eliminate non-compliant inventory (see table on page 4).

Fabricators are also required to comply with certain terms within the regulation. Specifically, fabricators are required to source compliant raw materials and/or components made from those materials. Record keeping requirements are the same for fabricators as for distributors, with the addition of a labeling requirement. Fabricators must label every finished good or every box containing finished goods. They can use a label, stamp, tag or bar code to accomplish this. There is a sell-through provision allowing fabricators to eliminate non-compliant inventory (see table on page 4).

All records must be maintained electronically or in hard copy for a minimum two years for enforcement purposes. See the regulation requirements table for detailed information.

#### What about imported panels?

All imported hardwood plywood, composite wood products and finished goods for sale in California are covered by this regulation and must comply with the applicable emission levels, just like domestically produced products.

#### How can I ensure compliance today?

Independent tests show that all of Columbia's domestically manufactured veneer core hardwood plywood using PureBond® technology satisfies the CARB Phase 1 & 2 emission standards today. As a matter of fact, Columbia's conversion to PureBond manufacturing will exempt Columbia from many of the regulation's requirements. By specifying Columbia's PureBond products, one can have confidence they meet the most stringent emission standards. PureBond veneer core hardwood plywood panels meet Phase 2 emission levels today because the adhesives are formaldehyde-free. Columbia has been manufacturing this product for over three years now and we are proud to be able to offer this safe and effective alternative to our customers.

#### Where can I get more information?

If you have further questions regarding these regulations and requirements or

about ensuring the use of compliant products, contact Columbia at one of the regional numbers listed on the back page or visit our web site at [www.cfpwood.com](http://www.cfpwood.com) or [www.specifycolumbia.com](http://www.specifycolumbia.com).

For more detailed information on CARB's formaldehyde emission regulation, including regulation documents, visit its web site at [www.arb.ca.gov/toxics/compwood/compwood.htm](http://www.arb.ca.gov/toxics/compwood/compwood.htm) or call the Air Resources Board information line at 916.322.2990.

All of Columbia's domestically manufactured veneer core hardwood plywood using PureBond® technology is compliant with Phase 1, and much of it is compliant with Phase 2 today.

REQUIREMENTS	Distributors	Fabricators	Retailers
<b>1. Supplier Notification</b> — instruct and request written confirmation from each supplier of composite wood products and finished goods that they must comply with applicable emission standards	✓	✓	✓
<b>2. Record Retention</b> — includes date of purchase and supplier name; retained in hardcopy or electronic format, minimum 2 years	✓	✓	✓
<b>3. Product Labeling</b> — if products not modified, no additional labeling required	✓		✓
<b>4. Statement of Compliance</b> — bill of lading or invoice must state products comply with applicable P1 or P2 emission standard	✓		
<b>5. Facility Inspection &amp; Record Auditing</b> — ARB staff or local air district personnel can inspect locations; will request to audit records or secure samples for random testing	✓	✓	✓
<b>6. Product Labeling</b> - label all finished goods destined for sale/supply in California; should include: <ul style="list-style-type: none"> <li>Fabricator name</li> <li>Date good was produced</li> <li>Note that good was made with HWPW, PB or MDF that complies with applicable P1 or P2 emission standard</li> <li>If good was made entirely with formaldehyde-free composite wood products, labeling should indicate this</li> </ul>		✓	
<b>7. Laminated Products</b> — if platforms are used to manufacture laminated products, platform must comply with applicable P1 or P2 emission standard		✓	

**“Manufacturer”**- any person who manufactures or produces a composite wood product (hardwood plywood veneer core or composite core; particleboard; MDF; or thin MDF).

**“Importer”** - as defined in the regulations of the Bureau of Customs and Border Protection, 19 Code of Federal Regulations, section 101.1:

The person primarily liable for the payment of any duties on the merchandise, or an authorized agent acting on his behalf. The importer may be:

- (1) The consignee, or
- (2) The importer of record, or
- (3) The actual owner of the merchandise, if an actual owner’s declaration and superseding bond has been filed, or
- (4) The transferee of the merchandise, if the right to withdraw merchandise in a bonded warehouse has been transferred.

**“Distributor”** - any person to whom a composite wood product or finished good is sold or supplied for the purposes of resale or distribution in commerce – this excludes manufacturers and retailers.

**“Retailer”** - any person or entity that sells, offers for sale, or supplies directly to consumers composite wood products or finished goods containing composite wood products.

**“Fabricator”** - any person that uses composite wood products to make finished goods. “Fabricator” includes producers of laminated products.

**“Finished Goods”** - any good or product, other than a panel, containing hardwood plywood, particleboard or MDF. Component parts are not “finished goods”, although used in the assembly of finished goods.

**“Hardwood Plywood Veneer Core (HWPW-VC)”** – means hardwood plywood with a core made of a sheet or sheets of veneer.

**“Hardwood Plywood Composite Core (HWPW-CC)”** – means hardwood plywood with a composite core.

**“Composite Core”** – means a platform for making hardwood plywood or laminated products that consists of particleboard and/or MDF or combination core.

**“Combination Core”** – means a platform for making hardwood plywood that consists of a combination of layers of veneer and particleboard or MDF. Combination cores are regarded as composite cores for emission levels.

**“Laminated Product”** - finished good or component part of a finished good made by a fabricator in which a laminate or

laminates are affixed to a platform. If the platform consists of a composite wood product, the platform must comply with applicable emission standards.

**These sell-through provisions apply ONLY to veneer core hardwood plywood manufactured prior to January 1, 2009 and composite core hardwood plywood manufactured prior to July 1, 2009.**

<b>CARB HARDWOOD PLYWOOD SELL-THROUGH PROVISION</b>	<b>Comply By Date (Must being selling compliant product)</b>
<i>Manufacturers &amp; Importers of Hardwood Plywood</i>	
Phase 1 VC	4/1/2009
Phase 2VC	4/1/2010
Phase 1 CC	10/1/2009
Phase 2 CC	10/1/2012
<i>Distributors of Hardwood Plywood</i>	
Phase 1 VC	1/1/2011
Phase 2VC	1/1/2011
Phase 1 CC	1/1/2011
Phase 2CC	12/1/2012
<i>Retailers of Hardwood Plywood</i>	
Phase 1 VC	1/1/2011
Phase 2VC	1/1/2011
Phase 1 CC	1/1/2011
Phase 2CC	7/1/2013
<i>Fabricators &amp; Retailers of Finished Goods Made From Hardwood Plywood</i>	
Phase 1 VC	1/1/2011
Phase 2 VC	7/1/2011
Phase 1 CC	1/1/2012
Phase 2 CC	1/1/2014

\*As of the applicable regulation start date, non-compliant composite wood products sold or used in the fabrication of finished goods must have been manufactured prior to effective start date of regulation.  
**VC = Veneer Core CC = Composite Core**



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**CENTRAL US:**  
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