



California Passes Tough Limits on Formaldehyde Emissions from Composite Wood Panels

After five years of intensive work, the California Air Resources Board voted unanimously on April 26 to pass the toughest, most comprehensive production standard in the world for formaldehyde emissions from composite wood panels. This new regulation will govern the formaldehyde emissions from particleboard panels, MDF panels and hardwood plywood panels and applies to both the raw panels themselves and the finished consumer products, such as furniture, kitchen cabinets and interior mouldings, which utilize composite wood products in their manufacture. The rule applies to all such products offered for sale or use in California, no matter where they are made around the world.

Unlike other formaldehyde emission standards currently in place around the world, CARB chose to set their emission limits as ceilings, not averages, and to allow no exceedences beyond those levels. That means that every composite wood panel produced for sale or use in California, whether as a raw panel or as a component of a further value-added product, must be at or below the formaldehyde emission limits set by the rule. To provide industry with the time needed to develop and perfect the new technologies necessary to meet the rule, CARB established a tiered approach to the levels and a staggered implementation timeline that phases the emission limits in over the next four years (see accompanying chart). By the time the Phase II limits become effective in 2011, the composite wood industry will have achieved better than a 60% reduction in the formaldehyde emissions from particleboard and a reduction of more than 70% in the emissions from MDF as compared to current levels. By any mea-

sure, these are dramatic reductions and only serve to reinforce that the composite wood industry truly is one of the greenest in the world!

Throughout the five year process to develop this rule, members of the composite wood industry worked hand-in-hand with the CARB staff to develop a rule that was mindful of the health impacts on California citizens yet responsive to the technological needs of the industry. It was gratifying to hear the CARB staff publicly recognize and thank the industry for the cooperative spirit we as panel manufacturers brought to the table, and that close working relationship will serve us well as we move forward together on the implementation and enforcement of this rule. For, now that the rule has passed, the real work must begin.

The most critical aspect of the work yet to be done is the development of a workable, equitable enforcement protocol for the products governed by the rule. As the Board Members quickly recognized at the hearing on the 26th, the two most problematic issues in the development of the enforcement mechanisms of the rule will be the certification of overseas producers and the testing of finished consumer goods.

Although the new rule is a raw panel standard, it places a compliance burden on fabricators and retailers as well as manufacturers. Any panel manufacturer that wishes to sell products into California must have their panels third-party certified that they meet the emission requirements in the rule, and any downstream fabricator or retailer creating products for sale or use in California that use composite wood panels must maintain the chain-of-custody certification as those products move through the manufacturing process. Because this third-party certification

CARB RAW PANEL FORMALDEHYDE EMISSION CEILINGS AND IMPLEMENTATION SCHEDULE		
PRODUCT	PHASE I LEVELS (PPM) AND EFFECTIVE DATES	PHASE II LEVELS (PPM) AND EFFECTIVE DATES
Hardwood Plywood – Veneer Core	0.08 Jan. 1, 2009	0.05 Jan. 1, 2010
Hardwood Plywood – Composite Core*	0.08 July 1, 2009	0.05 July 1, 2012
Particleboard	0.18 Jan. 1, 2009	0.09 Jan. 1, 2011
MDF	0.21 Jan. 1, 2009	0.11 Jan. 1, 2011
Thin MDF**	0.21 Jan. 1, 2009	0.13 Jan. 1, 2012

*Hardwood plywood panel using particleboard or MDF in the core.
**Maximum thickness of 8mm.

provides the linchpin upon which compliance will be based, we must all have complete confidence that every product entering California is backed by a valid certificate from an approved certification agency. Only then can we be sure that all products are being properly measured against the same standard.

Because any certification system, no matter how rigorous and thorough, will occasionally allow unintentional failures through the process, CARB has recognized that there must be an enforcement testing component to the rule to verify compliance. CARB is proposing to test both raw panels and finished consumer goods that use composite wood panels. The raw panel testing is understandably easy and straightforward. The finished product testing, however, presents significant challenges.

Through such processes as cutting, shaping and finishing, the composite wood panels used as components in products are always used in a modified form,

yet they must be tested in their raw form. That means that the finished product must be deconstructed so that the component panel pieces can be returned to their original form – the product must be disassembled and the finishes, glues, overlays and other materials affixed to the panel must be removed without modifying the basic panel. In other words, it's like trying to extract the flour from a blueberry muffin and return it to its original form so it can be tested. You can appreciate the challenge.

As difficult as these challenges are, they must be addressed to make this rule successful and equitable for the manufacturers, fabricators, and retailers of products using composite wood panels. Without strict enforcement of the rule, there is too much opportunity for unscrupulous manufacturers and fabricators to try and cheat the system and supply non-compliant products into California. That not only provides less benefit to the people of California, but it puts customers like you in jeopardy and punishes the upstanding, compliant manufacturers. The CARB staff responded to the Board Members' concern about enforcement by dedicating themselves to creating and enforcing a rigorous enforcement protocol, and we will continue to work together cooperatively with the CARB staff to make sure that happens.

As an industry, we have continually responded to your changing needs by developing innovative products that provide you with the quality, performance, and value that you need to stay successful. The recent actions by CARB do nothing to change that. Rest assured, your supply of quality composite wood products will continue unabated. The North American composite wood industry has always been a leader in the development of green products engineered to meet the needs of our customers, and that leadership will continue as we work together with CARB to introduce products to meet this and all future customer requests.

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