

## Technical Tip

### Formaldehyde in AdvanTech® and ZIP System® Panels

AdvanTech® and ZIP System® panels are manufactured in accordance with the product standard, PS2, *Performance Standard for Wood-Based Structural-Use Panels*. The adhesives used to produce AdvanTech and ZIP System panels are a combination of exterior type isocyanate resins and phenol formaldehyde (PF) resins. Isocyanate resins contain no formaldehyde. During manufacturing, PF resins are exposed to heat and pressure. This heat and pressure cures the resin into nonreactive and stable material. Questions or concerns associated with formaldehyde are typically associated with products manufactured using urea formaldehyde such as particleboard, hardwood plywood and MDF moldings. Products manufactured by Huber Engineered Woods LLC do NOT contain any urea formaldehyde.

According to the U.S. Department of Housing and Urban Development (HUD), the emission levels for structural wood panels manufactured using phenol formaldehyde are too low to be considered significant. Because of the low emission levels, U.S. HUD has exempted phenolic-bonded wood structural panels from required testing and certification.

The California Air Resources Board (CARB) Air Toxic Control Measure for Wood Products that went into effect on January 1, 2009 is arguably the most restrictive regulation in the United States governing formaldehyde emissions. Sections 93120(b) and 93120.1(a)(8) define the products covered by this regulation as hardwood plywood, particle board and medium density fiberboard. Oriented Strand Board (OSB) such as AdvanTech and ZIP System panels are exempt from this regulation.

Please contact our technical services department at 800-933-9220 with any questions or comments.

#### Resources:

1. APA – The Engineered Wood Association, Wood Facts, *Formaldehyde Emissions and Exemptions*.
2. Structural Board Association, Technical Bulletin, *Negligible or Non-Existent Formaldehyde Emissions from OSB Panels*.
3. TECO, Tech Tips, *Formaldehyde Emission from Wood-Based Panels*.
4. California Air Resources Board, *Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products*.