



## Do you use conventional particleboard for construction projects?

### Would you like to improve this process in the following areas?

- **Meet environmental compliance regulations.** Comply with Executive Order (EO) 13101 and RCRA affirmative procurement requirements. Media areas include solid waste and air programs.
- **Improve workers' safety and health.** Improve indoor air quality.
- **Increase productivity.** Improve working conditions and reduce employee absenteeism that results from improved indoor air quality.
- **Save money.** No change from current operations.



*Pressed Wheat Straw Fiberboard*

*An industrial-grade particleboard made from pressed wheat straw, and polymeric diphenylmethane diisocyanate (a formaldehyde-free binding agent) can be used in lieu of conventional particle board for furniture, cabinets, countertops, floor underlayment, and laminate flooring. This agricultural (ag) - fiberboard product meets the current standard for particleboard (ANSI A208) and is manufactured in panels 5'x 8', 5'x 9', and 5'x 10' and in thicknesses ranging from 3/8" to 1 1/8". The formaldehyde-free ag-fiberboard is produced from an annually renewable resource and has excellent machining qualities and a superior laminating surface. In addition, it is 10% lighter and has greater moisture resistance than conventional particleboard. **Procuring agencies and personnel serving Navy installations are encouraged to purchase ag-fiberboard products whenever feasible.***

### How can you achieve these improvements?

Use ag-fiberboard in lieu of conventional particleboard in construction of flooring, cabinets, countertops, and furniture.

### How does this system work?

The ag-fiberboard is made of compressed wheat straw and formaldehyde free binding agent, and meets all current ANSI standards for particleboard.

### How will this system save you money?

Improved indoor air quality in work environments can improve working conditions and reduce employee absenteeism. Cost of this product is roughly the same as for conventional particleboard.



How can this technology eliminate or reduce pollution?

Ag-fiberboard is not manufactured using formaldehyde or other off-gassing volatile organic compounds typically found in conventional particleboard. Implementation will result in the following pollution reductions from the manufacture of these products:

- Reduction in hazardous waste disposal.
- Reduction in formaldehyde or other off-gassing in workspaces.

Which applications can benefit most from this technology?

Products made from formaldehyde-free ag-fiberboard can be used at all Navy shore installations. Typical applications include:

- New construction
- Furniture
- Remodeling
- Partition systems

How can this technology reduce regulatory compliance concerns?

Use of formaldehyde-free ag-fiberboard products will result in the following regulatory compliance benefits:

- Helps facilities comply with EO 13101 affirmative procurement requirements.



#### Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

Naval Facilities Engineering Service Center (NFESC) Technical Report TR-2102-ENV, "Evaluation of Bio-Based Industrial Products for Navy and DoD Use: Primeboard," March 1999. (Web: <http://enviro.nfesc.navy.mil/ps/biobased/Primeboard.pdf>)

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