

Soyad[®]

Adhesive Systems

- Formaldehyde-Free
- Cost Competitive
- CARB Phase 2 Compliant
- LEED* Compliant
- Low VOCs

HERCULES

ASHLAND

Soyad[®]

Adhesive Systems

The natural choice for today's interior wood products

Plywood

Particleboard

Medium-Density
Fiberboard

Engineered
Wood Flooring

A formulation so advanced, it's natural

By combining proprietary resin chemistry with a natural, renewable resource, Soyad[®] adhesives provide a cost-competitive, environmentally-friendly alternative for today's demanding interior wood products market. Based on soy flour and containing absolutely no formaldehyde, Soyad adhesives are quickly becoming the system of choice for industry leading manufacturers who want to stay ahead of regulations and help improve the quality of indoor air for their workers and customers.

Whether you produce decorative plywood, particleboard, MDF, or engineered wood flooring, Soyad adhesives offer a number of added performance advantages:

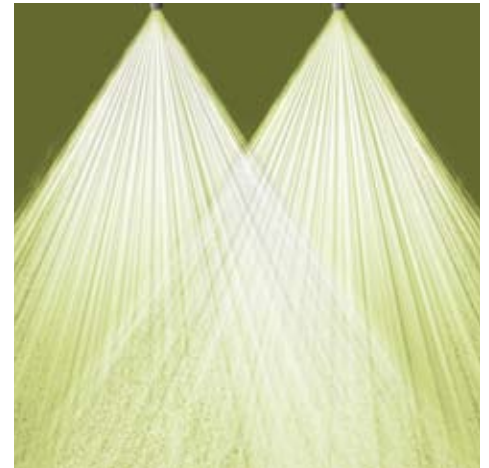
- Easy-to-apply, two-component, sprayable liquid system
- Contains no formaldehyde and low VOCs
- Meets CARB Phase 2, European, and Japanese standards
- Lower cost than other low-emitting alternatives
- Provides excellent water resistance
- Meets LEED* criteria
- Low capital investment
- Minimal impact on productivity



Soyad adhesives are made from soy flour, a natural and renewable resource.



Smooth and consistent, Soyad has a viscosity similar to latex paint.



Easily sprayed, Soyad is an excellent choice for composite panel operations.

Environmental regulations tighten formaldehyde use

Interior wood products use large amounts of adhesives, most of which contain urea formaldehyde (UF). UF releases free formaldehyde into the air over time, going from its solid form in the adhesive to a gaseous form that is ingestible by humans. Given that formaldehyde was recently classified as a carcinogen, new regulations have been enacted to reduce formaldehyde emissions from interior wood products. In fact, the California Air Resources Board (CARB) recently adopted the United States' most stringent regulations on formaldehyde emissions.

Because there are few alternatives to UF-based adhesives, and because most substitutes cost significantly more than UF systems, it is nice to know that Ashland offers a cost-competitive, formaldehyde-free adhesive today.

Ashland — a strong name in “green” chemistry

Soyad® adhesives are produced by Ashland Hercules Water Technologies, a proud recipient of a Presidential Green Chemistry Challenge Award. This award recognizes the company's role in developing and commercializing Soyad adhesive systems. Administered by the U.S. Environmental Protection Agency, the Presidential Green Chemistry Challenge Awards Program recognizes chemical technologies that incorporate the principles of renewable green chemistry into chemical design manufacture, and use.



Compare and see why Soyad adhesives are the natural choice

	Soyad Adhesives	PF	MF	pMDI	PVAc
Formaldehyde-Free	Yes	No	No	Yes	Yes
LEED* Compliant	Yes	Yes	Yes	Yes	Yes
CARB 2 Compliant	Yes	Yes	Possible	Yes	Yes
Adhesive Cost	Medium	Medium	High	High	High
Pot Life	Long	Medium	Medium	Short	Long
Cure Speed	Moderately Fast	Slow	Average	Fast	Moderately Fast
Cure Temperature	Medium	High	Medium	Medium	Low
Water Resistance*	Very Good	Excellent	Excellent	Excellent	Poor
Color	White/Yellow	Dark Red	White	Amber	White
Sprayable	Yes	Yes	Yes	Yes	Yes
Handling/Cleanup	Simple	Difficult	Moderate	Difficult	Moderate

*Based on Boil Test

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