

# SOYAD™ PLUS ADHESIVES

The natural choice for engineered wood flooring



- Formaldehyde-free
- Easy to Use
- Cost Competitive
- CARB Phase 2 Exempt
- LEED\* Compliant
- Superior Bond Strength

## Technology Overview

Soyad™ Plus adhesive technology is a patented, formaldehyde-free adhesive system from Solenis that is used to manufacture environmentally-friendly engineered wood flooring. Soyad Plus adhesives are used to produce flooring panels with veneer or high-density fiberboard cores. The strength and depth of fiber bonding provided by a Soyad Plus adhesive is comparable to that of formaldehyde-based adhesives. Soyad Plus adhesives are cost competitive with formaldehyde-based adhesives and, in most cases, cost less than other no-added-formaldehyde (NAF) technologies.

Soyad Plus adhesives are water-based systems formulated with natural soy flour and a proprietary cross-linking resin. When blended together the resin reacts with the protein in the soy flour to form a durable and water-resistant thermoset adhesive.

Soyad Plus adhesives can be customized as needed to meet your specific operational and manufacturing requirements.

## Conversion Requirements

When converting from a formaldehyde-based adhesive to a Soyad Plus adhesive, some mixing system changes are usually required. However, Soyad Plus adhesives are easily applied using the same spreaders typically used for formaldehyde-based adhesives and spread rates, press temperatures and press times are similar to those of formaldehyde-based adhesives.

## Industry Acceptance

Since 2005, hundreds of millions of hardwood plywood panels have been produced in North America with Soyad adhesive technology. Today, Soyad Plus adhesives are used globally to produce engineered wood flooring and they are quickly becoming the adhesive system of choice for industry leading manufacturers who want to stay ahead of formaldehyde regulations and help improve indoor air quality.

## Formaldehyde Emission Standards

Soyad Plus adhesives are ideally suited for engineered wood flooring because they contain no formaldehyde. The amount of formaldehyde emitted from flooring panels made with Soyad Plus adhesives is attributable to naturally occurring formaldehyde within the wood and is significantly lower than that of panels made with low-emitting urea-formaldehyde adhesives.

Flooring panels made with Soyad Plus adhesives meet all global formaldehyde emission standards, including CARB Phase 2, European E0 and Japanese F☆☆☆☆ standards. Additionally, flooring panels produced with Soyad Plus adhesives are CARB Phase 2 exempt and are eligible for LEED points for improved indoor air quality.



## Performance Advantages

Commercial applications confirm that Soyad Plus adhesives provide a number of performance advantages for engineered wood flooring manufacturers. Consider the following:

- Provides superior bond strength
- Eliminates formaldehyde-related health hazards for workers and end-use consumers
- Cost competitive with formaldehyde-based adhesives and other NAF technologies
- Easy transition from formaldehyde-based adhesive using existing spreader and press conditions

Additionally, flooring panels made with Soyad Plus adhesives:

- Meet all global formaldehyde emission standards
- Are CARB Phase 2 exempt
- Qualify for LEED points

## More Information

To learn more, contact your technical sales representative or visit us online.