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Volume 7, Issue 3

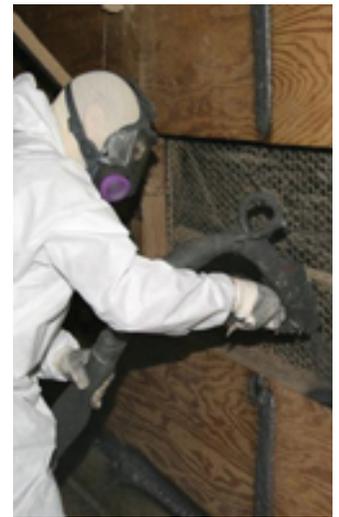
May 2006

Innovative New Uses for Soy

Soy-Based Sealant Shows a New Side of Soy

Over the past few years, soy-based foam products have made an impact in the construction industry, and now they are changing the way soy is used in buildings on the farm. Ag-Tite, developed by EDGE Inc., in conjunction with Biobased Systems, is a soy-based sealant first intended for use in agricultural facilities. Black sealants produced by Ag-Tite are designed to fill cracks and openings in agricultural structures, such as barns, poultry houses or hog pens. The United Soybean Board and soybean checkoff continue to support innovative soy-based technology.

"We created the products in the Ag-Tite line to meet specific industry needs," says Bill Collins, general manager of EDGE Inc. "Before Ag-Tite was developed we noticed that clientele in the poultry industry needed a solution to repairing their facilities. Many of the buildings were more than a decade old and had experienced wear and tear from daily operations' and we were able to solve that problem with the creation of our soy-based sealants."



Ag-Tite is a black, nominal 3 lb. /cubic foot density spray applied polyurethane sealant. Certified technicians install this two-part, soy-based product using custom designed application equipment developed by EDGE Inc. The two components (component A and component B) are stored in 55 gallon drums and loaded into specialized trailers. The drums are then heated to 90 degrees Fahrenheit, put under pressure and applied using a hose heated to 135 degrees.

"Ag-Tite is not only good for farmers since it's made with soy, but it also helps to reduce on-farm costs from heating buildings and animal livestock facilities," said Collins. "Our product is cost-effective, has twice the density of any other polyurethane product in the market and is the only product that has been E-84 tested as an agricultural sealant."

The sealant is mixed at a 1:1 ration between component A - Polymeric Diphenylmethane Diisocyanate and component B - XBBS 020-12, a polyol blend with amine catalysts. Ag-Tite should be sprayed in single passes that will give rise to 1-2 inches of quick curing foam. Successive passes can be made after the application has cooled.

Ag-Tite has undergone several product tests and has a National Fire Protection Association (NFPA) rating of 704M. Under NFPA standards (0 being low and 4 being high) Ag-Tite has a health rating of two, flammability rating of one, reactivity level of one and no special rating. Hazardous Materials Information System (HMIS) rated Ag-Tite with a two in health, a one in flammability and a one in physical hazard.

The product should be stored in a dry place within the temperature range of 64 degrees Fahrenheit and 86 degrees Fahrenheit. Ag-Tite has a flashpoint of 390 degrees Fahrenheit; is non-soluble in water; reacts to water, alcohol, bases and acid; and has a shelf life of six months.

For more information on how to obtain Ag-Tite, or to become involved with Ag-Tite please contact Bill Collins at bill@ag-tite.com. For more information on soy-based technology, visit USB at www.unitedsoybean.org/newuses.

TECHNICAL DATA

TYPICAL PROPERTIES	TEST METHOD	XBBS 020-12.2 RESULT
"A" Component:		
Viscosity at 77°F (25°C), cps	ASTM D 4878	225
Specific Gravity at 77°F (25°C)	ASTM D 4669	1.24
Mixing Ratio, % by Volume		50
"B" Component:		
Viscosity at 77°F (25°C), cps	ASTM D 4878	4070
Specific Gravity at 77°F (25°C)	ASTM D 4669	1.13
Mixing Ratio, % by Volume		50
Sprayed Foam Density, pcf	ASTM D 1622	3.0 nominal
Open-Cell Content, %	ASTM D 2856	To be Determined
Maximum Service Temperature, °F (°C)	ASTM C 411	180°F (82°C)
"R" Value		5.5/6.0 per inch
Flamespread Index	ASTM E84	25 / Class 1
Smoke Development Index	ASTM E84	135 / Class 1

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