



Innovative New Uses for Soy

The Many Uses of Soy Foam



What do wake surfboards, wind blades, construction materials and military target drones all have in common? They are all products that one company helps make greener through the use of soy polyols. Malama Composites, located in San Diego, builds their business around incorporating soy polyols into all kinds of products. The United Soybean Board (USB) and soybean checkoff fund research to help

commercialize soy products such as soy polyols.

"The word Malama is Hawaiian and means to care for and protect the Earth," says Ned McMahon a partner with Malama Composites. "Malama dedicates itself to clean chemistry, and that's why we use largely soy-based polyols."

The soy foam Malama uses is made with a polyol that is 40 percent soy. These polyols form different kinds of foam for all kinds of applications.

"As we learn more and more about formulating, we try to target our formulations to meet the specific needs of different applications," says McMahon.

Since the foam Malama creates can be used for many applications, it is designed to cater to its specific use. To do this Malama adjusts the foams density from anywhere between 2 and 10 pounds.

"A wind blade for a small wind turbine requires less density than a blade for a 60-foot-tall commercial wind turbine," says McMahon. "Depending on the amount of sheer strength needed, we adjust our foam formulations."

The performance of Malama's composites is similar to their petroleum counterparts, according to McMahon. Since the foam uses soy, many of Malama's customers prefer it because of its green content.

"We have supplied some homebuilders who were interested in obtaining LEED points for their construction projects with our composites," says McMahon. "In the case of the military target drones, the drones are used for target practice and shot down over the desert often, and many of the smaller pieces are left, so having sustainable materials like soy reduces environmental impact."

To learn more about Malama Composites, go to www.malamacomposites.com. To get more information on soy foam and other soy-based products, visit the USB's new uses Web site at soynewuses.org.