



Innovative New Uses for Soy

Soy-Based Polyols Offer Green Gasket Options to Auto Industry



Soy continues to grow its role in the automotive industry, with soy-based gaskets, in addition to soy foam in seats, soy plastics in body parts and other uses. The auto industry continues to look to soy-based products to provide sustainable products that meet or exceed the requirements and performance of petrochemical products.

The United Soybean Board (USB) funds research and supports the development of soy products and technology like soy polyols, foams, plastics and other products that can help replace petrochemicals. Many soy-based products, ingredients and intermediates exist for a variety of industries that can be found in USB's [Soy Products Guide](#) online, including soy-based products for the auto industry like gaskets.

Recycled Polymeric Materials (RPM), a Detroit-based company, produces recycled rubber gaskets that feature 17 percent bio-renewable content (15 percent soy-based and 2 percent corn-based). The gaskets also feature 25 percent recycled material, using rubber from used tires. More than 150,000 pounds of soy polyols have been used in the gaskets and seals to date.

RPM uses a patent-pending ambient temperature reaction injection process to combine the latest soy-based polyurethane chemistry with recycled rubber, producing complex components, which can be used as direct replacements for vulcanized ethylene propylene diene monomer foamed parts and multilayer die cuts. Incorporating recycled rubber tires amplifies indentation force deflection and static fatigue performance characteristics.

According to the company, the RPM seals and gaskets pass ASTM International standards tests on compression and deflection, as well as show no evidence of cracking after 1,000 hours of ozone and heat resistance testing. The gaskets also showed no odor in additional testing.

The seals and mirror gaskets currently can be found in over 20 models of vehicles made by Ford, Lincoln, Volvo, Chevy, Honda, BMW, Nissan, Jeep and Saturn.

To learn more about the soy-based gaskets and other technologies from RPM, visit www.rmpolymer.com. To learn more about soy-based products, visit www.soynewuses.org.