



Using Scrap Tires in GA DOT Projects

Ten million vehicle tires are discarded in Georgia every year. That's more than 27,000 tires scrapped every single day of every single week. What to do with them; how to pay for it; and how to prevent more than a million of them from being illegally dumped are questions that have frustrated the tire industry, environmentalists, and state and local governments for years.

Now, researchers and engineers for the Georgia Department of Transportation have developed two programs that will put tens - perhaps hundreds - of thousands of these scrap tires, as well as those ubiquitous truck tire "gators" that haunt our highways, to good uses.

What's more, we'll save state taxpayers money at the same time.

One of the efforts already underway converts scrap tires into an actual component of pavement. Ten percent of the asphalt the Department uses to construct and resurface portions of Georgia's 19,000 miles of federal and state roads requires the addition of polymers to enhance component bonding and add strength and elasticity to the pavement mix. The more traffic a road carries the higher Georgia DOT's requirements for the durability of its asphalt. Until now, polymers for that high-grade asphalt have only come via direct chemical injection. But Department and industry researchers like those at Lehigh Technologies in Tucker, GA, have determined that shredded tire carcasses – crumb rubber – can satisfactorily provide the same polymer qualities – and do so about \$3 per ton cheaper. So beginning this past April, we began allowing contractors who bid on our asphalt paving jobs to utilize either the chemical polymer-modified or crumb rubber-modified mixture.

And when you use some seven million tons of asphalt a year like Georgia DOT, the potential savings are significant.

So is the possible reduction in those unsightly mountains of vermin-infested, disease-promoting scrap tires. Some 2,000 tires are required to produce the necessary polymer content for one mile's worth of asphalt. The Department potentially could use 7 million lbs. of the material each year – a staggering 280,000 tires. And that's just one of our tire recycling programs.

The other focuses on illegally dumped tires and those ugly and dangerous "gators" – carcasses of tractor trailer retreads – that seem to line our major freight corridors.

The program already is underway on a demonstration basis in Metro Atlanta and has the potential to save the Department – and Georgia taxpayers – more than \$40,000 a year. As DOT maintenance forces routinely clean roadways of trash and debris, instead of paying for its disposal, they're setting aside as many as five tons a week of illegally dumped tires and tread carcasses they collect. Liberty Tire Recycling, LLC, periodically picks up this refuse rubber; grinds it into crumbs; and sells it to companies like Georgia's Mohawk Industries where it is converted into commercial products and applications.

In short, we're using a Georgia waste product to create jobs for Georgians at Georgia companies and, in the process, saving Georgia taxpayers money.

Innovative recycling programs like these perhaps aren't the first thought that comes to mind when one thinks of the Georgia DOT? But they play an integral part in fulfilling our mission to provide a safe, seamless and sustainable transportation system that supports Georgia's economy and is sensitive to both its citizens and its environment.

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