Old Roads Can Be Made New Again

By George Ruger

When was the last time that you went somewhere on a road? Was the ride smooth, or was it bumpy due to potholes? Have you noticed that starting in the Spring, road crews repair the roads by removing the top layers of asphalt and replace it with a fresh layer? What happens to the material that gets removed?

Traditionally, when old asphalt is removed from road surfaces, the material is sent to a landfill. Fresh asphalt is placed on the roads to restore them to their original thickness and to provide a smooth surface for cars and trucks to drive on. How many roads are there in your town? Consider how much material is removed as roads are repaired in your town. This takes place nationwide. That means a lot of material is thrown away every year and needs to be replaced with new material.

Our planet has limited space and limited resources. In order to preserve our environment for future generations, we need to find ways to use less resources and to reuse or recycle materials rather than starting from scratch each time. Is there a way to reuse asphalt that is taken from roads rather than using fresh product and tossing the old materials in the trash?

In 2015, the Warner Babcock Institute for Green Chemistry LLC and Collaborative Aggregates LLC announced the commercial availability of Delta S, a liquid additive that helps fix some of the damage to old asphalt. By adding Delta S into the mixture, more old asphalt can be used than before when combined with new asphalt. This new product makes a great new surface for the road and lasts a long time. Therefore, more of the old material is kept out of landfills and less new asphalt is needed to maintain our roads. Delta S is produced from plant materials, making it even more environmentally friendly.

When roads are being repaved, the asphalt is heated before being transported in the mixing trucks and is added to the road surface while it is still very hot. This requires a lot of energy to heat the material. It also can be dangerous to the workers who might come in contact with the hot material. Delta S mixed asphalt can be used at lower temperatures, therefore using less energy to heat and it is safer for the road crews.

Roads are something that people use every day. By taking small steps, we can minimize the impact to our environment while still having access to things that many of us take for granted. Are there other materials that we use every day which could also be reused or recycled more so then is done now? Can you name a few?

Reference