Rubber Pavements Association Seminar

Specification Handbook

**Introduction**

Thank you for your interest in rubber pavement technologies. Enclosed in this handbook are selected reports and specifications that can help you introduce Asphalt-Rubber (A-R) in your area of responsibility, agency or community. The specifications have been routinely used for many years and some such as the Arizona DOT and City of Phoenix specifications, for over thirty years. A CD-Rom is also included with more technical resources.

A-R can provide your community with a safe, quiet, durable and cost effective paving program. Besides economic benefits, A-R can provide significant environmental benefits as well. The technology successfully uses millions of scrap tires each year, turning a difficult waste into one of the best performing paving materials in the public domain today. Cities such as Thousand Oaks in California (pop. 36,000), uses its annual scrap tire discards in the yearly paving and maintenance program. Generally, in any population one scrap tire is generated for each person every year. One lane mile of hot mix with A-R uses about 1,000 scrap tires for every inch in pavement thickness.

The most popular characteristic of A-R pavements for engineers, particularly maintenance engineers, is crack resistance. Think about it, what material stays flexible in extreme cold and rigid in extreme heat? Vulcanized tire rubber. These properties are very desirable in asphalt pavements which can be too brittle in the cold or too soft in the heat. Usually, design engineers have to sacrifice one for the other. By adding 20% granulated tire rubber that remains un-dissolved in the pavement binder, the tire rubber properties are captured in the pavement in both hot and cold climates.

A-R is not patented or proprietary, with good mixing equipment and quality control, any contractor or material supplier can make it using local materials. Users frequently comment on the smooth and quiet ride. Proven specifications should be used to ensure success. Special attention to aggregate quality and gradation should be considered. A-R hot mix needs room for the granulated tire rubber, so Gap or Open graded (SMA or PFC) mixes work best. With spray applied systems, the binder is placed at twice the rate of conventional asphalt. A-R chip seals use around 0.6 gallons per square yard. The extra binder means extra durability. Many projects placed in the 1980s are still performing today.

The RPA is dedicated to help agency/industry partnerships provide the most cost effective and highest quality asphalt pavements containing recycled tire rubber. If there is anything the RPA can do to help you implement A-R in your area, please call 877-517-9944.

Best Regards,

Mark Belshe
Executive Director

Dedicated to encouraging greater usage of high quality, cost effective asphalt pavements containing recycled tire rubber.