

Mexico Uses Eco-Friendly Paving Process

A recent pilot paving project in the city of Toluca, about 45 minutes west of Mexico City, was done using Asphalt Rubber, or rubberized asphalt as it is sometimes called. Asphalt Rubber (AR) is an ASTM defined, high performance paving material that utilizes crumb rubber made from waste car and truck tires in a paving process. This AR process is used in many countries around the world to not only produce longer lasting roadways, but to help eliminate the growing waste tire problem that is plaguing many countries, including Mexico.

According to Kelly Sockwell, V.P. of Project Development with Phoenix Industries, a U.S. based company that builds waste tire recycling plants and asphalt rubber blending equipment, *this project has been in the works now for about two years, it has really been a team effort to get it done. We have put together a great team; Elias Sacal with Grupo Recyhul has been the point person in Mexico and contributed the crumb rubber for the project, Alberto Luthe with Mezcla Asfáltica de Alta Calidad contributed the hot mix production and paving and our company contributed the use of the asphalt rubber blending unit that blends the crumb rubber into the bitumen at the hot plant site.* Another important participant in this project is Juan Carlos Castro with Triaso SA de CV, the equipment fabricator for Phoenix Industries. Mr. Castro said, *I am very pleased to finally see an AR project being done here and we are proud to be part of helping to bring this excellent technology to Mexico.*



Phoenix Industries, AR150M asphalt rubber blending plant at Mezcla Asfáltica de Alta Calidad hot plant site in Toluca, Mexico

The mix design was done by Paccsa Ingenieria, S.A. de C.V., it was a 12mm, open graded friction course with a binder content of 7.25%. It was placed at a 50mm thickness over a newly constructed binder course. The modified AR binder was based on the ASTM wet process and was made-up of base AC-20 asphalt blended with 18% crumb rubber. The blended AR binder viscosity ranged from 1,800 – 1,950 cP at 177°C. The crumb rubber used was a 0.0 – 1.2mm size with a gradation similar to the Arizona Type 2 specification.

This is the fifth country in the last two years that Phoenix Industries has introduced the Asphalt Rubber paving process into and according to Mr. Sockwell, *we are looking at future projects in Puerto Rico and the Dominican Republic, as well as a couple of Mid East countries. Even though this Mexico project was very small, it lets us get some material on the ground so the local authorities can evaluate it. We know once they see how well the pavement performs and look at the added benefit of eliminating waste tires we feel asphalt rubber will become the clear choice by Mexico road authorities for their modified asphalt needs.* www.PhoenixIndustries.com