

# 以橡膠瀝青鋪築路面之台灣經驗

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## 摘要

Asphalt rubber (AR) was introduced from the United State to Taiwan in 2000. By blending and measuring binder properties, designing AR mixes with different gradation, the potential performance of AR was evaluated in the laboratory. In December, 2000 and May, 2002, with the assistance of the Taiwan Highway Bureau, two AR pavement test sections were constructed as the pilot projects: one with Gap-Graded design and the other with Open-Graded design. The nine-year and seven-year field evaluation results demonstrate their satisfactory performance and the potential to replace modified asphalt in domestic usage. The field data collected from the demonstration projects indicated the suitability of using the wet process AR blend method in Taiwan with local asphalt and ground tire rubber (GTR). Using GTR on pavements could not only be economically beneficial through the improvement of pavement performance but also be environmentally favorable through offering a better life-cycle for scrap tires. This particular article also introduced results of using proposed recycled material formula and service record combined with the data base provided by the Eco-indicator 99 to study the eco-burden presented by using AR to rehabilitate asphalt pavements. At last the opinions on relative environmental policies for using AR on pavements were proposed.

**關鍵字：**Ground Tire Rubber, Asphalt Rubber, Field Trials, Life Cycle Assessment