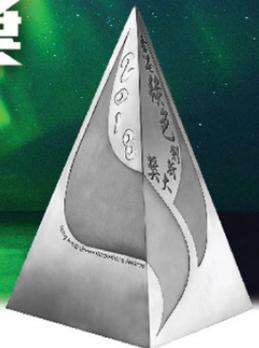


香港綠色創新大獎

Hong Kong Green Innovations Awards

銀獎 Silver Award



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

香港理工大學 — 基於廢棄輪胎橡膠及溫拌添加劑的 可持續低噪音路面

The Hong Kong Polytechnic University –
Sustainable Low-noise Pavements Built with Waste Tyre Rubber
and Warm Mix Additives

本項目為一種由廢棄輪胎橡膠、溫拌瀝青添加劑、普通瀝青及小粒徑骨料組成的環保路面材料，能帶來多重環保果效，包括循環再造廢棄輪胎、減低鋪設瀝青時的施工溫度及排放，以及降低路面交通噪音。

This entry is a green pavement material composed of waste tyre rubber, warm mix asphalt additive, conventional bitumen, and small-sized aggregate, which provides multiple environmental benefits, including recycling waste tyres and reducing the construction temperature, emission of asphalt pavement and tyre-road noise.



由廢舊輪胎橡膠、溫拌瀝青添加劑、傳統瀝青和小粒徑骨料組成，可以有效回收廢輪胎、減少路面施工時的能源消耗和排放，以及路面交通噪音。

Producing pavement material from waste tyre rubber, warm mix asphalt additive, conventional bitumen and small-sized aggregate has effectively recycled waste tyres and reduced energy consumption and emissions during construction as well as reduced tyre-road noise.



透過小粒骨料和間斷級配的特點，提高道路結構的持久度，減少噪音污染，並透過溫拌添加劑降低施工所需的溫度，從而降低與鋪設橡膠瀝青路面相關的能源消耗和排放。

Improving durability of road construction and reducing noise pollution through the features of small aggregate and gap gradation; and reducing temperature required for construction by the warm mixing additive, and thus bringing down energy consumption and emissions associated with the paving of rubberised asphalt roads.



本項目於施工期間只需要較少的熱能以作物料混合及壓實工序，因而降低對附近環境造成的空氣污染及相關滋擾。施工期後，本項目亦較傳統瀝青路面減少路面噪音達三分貝。

The entry requires less heat for material mixing and compaction process during the construction period, thus reducing air emissions and relevant nuisance to the environment nearby. After the construction, the entry is able to reduce tyre-road noise by 3dB as compared with conventional asphalt pavements.