

環保再造磚 Eco-Block

具淨化空氣功能的環保再造地磚

Environmentally friendly paving block that can keep the air clean

專利申請編號及國家：200610169062.0 (中國)

特色與優點

- 能有效清除空氣中污染物的氧化氮
- 環保磚利用循環再造物料取代天然物料而製成
- 符合香港特別行政區土木工程標準
- 吸水力、硬度及外觀上均較傳統磚塊優勝
- 耐用度等同傳統磚塊

應用

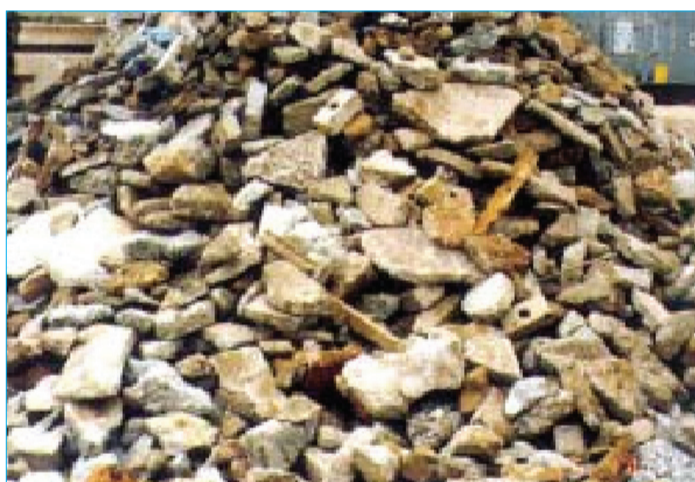
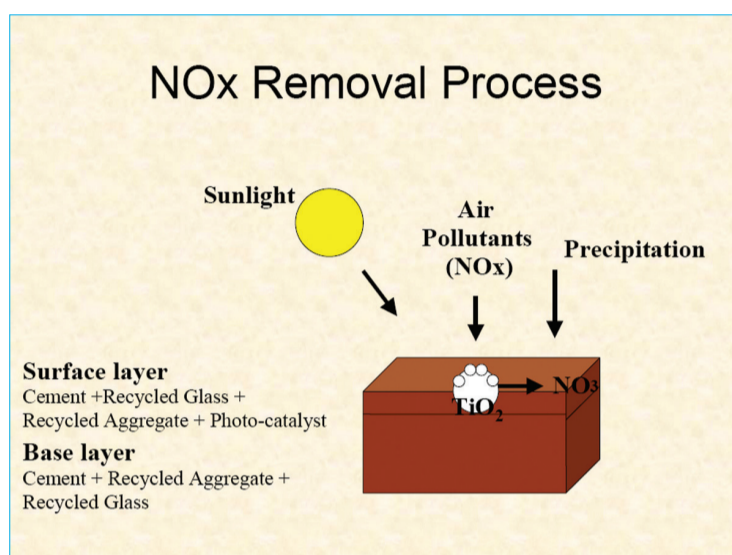
鋪設於：

- 行人道
- 行車通道

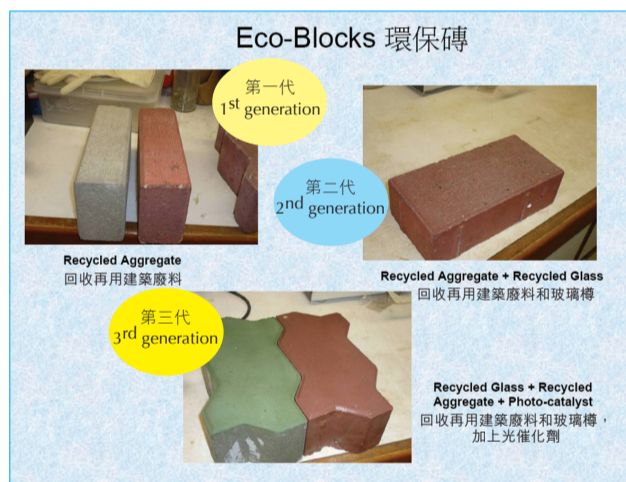
獎項

- 2006 年香港環保產品卓越獎 (2006)
- 香港環保建築優異獎 (2006)
- 第六屆國際發明展覽會-金獎 (2008)
- 澳門基金會發明獎 (2008)

香港每日產生三百噸玻璃廢料及數以千噸的建築廢物，這些廢料往往被運送到堆填區作處理，不但加重堆填區的負荷，亦破壞環境。理大研發的環保玻璃及除廢氣磚採用回收材料生產，利用廢棄玻璃與建築廢物製作而成，能夠化解空氣中的氮氧化物。此發明有助紓緩堆填區的壓力，亦可持續減低空氣中的有害物質，有效地支持政府的「藍天行動」。



循環再造物料之一：建築廢料
One of the Recycled Materials: construction waste



環保再造磚不同年代的研發成果
Different generations of Eco-Block



環保再造磚已在理大校院內使用
Application of Eco-Block: pavement in PolyU

Patent Application No.: 200610169062.0 (China)

More than 300 tonnes of glass wastes and thousands of tonnes of construction material are generated daily in Hong Kong and are disposed to the landfill sites which are taking up much of HK's precious landfill resources. Eco-block is an environmentally friendly construction material which is made by a patented technology developed by PolyU. It effectively uses recycled glass and construction waste as major constituents in the production of concrete blocks to remove air pollutants, such as nitrogen oxides (NOx). It not only reduces the disposal of waste, but also conserves the use of natural resources, such as river sand.

Special Features and Advantages

- Air pollutant removal capability
- Able to replace the natural substances by recycled materials as "Green" application
- Equivalent to conventional blocks in all performance requirements that has been fulfilled HKSAR's civil engineering work standards
- Has superiority over conventional blocks in terms of water absorption, hardness and aesthetic values
- Its physical life-span is comparable to the conventional blocks

Applications

Paving in:

- Pedestrian Areas
- Vehicular Areas

Awards

- Notable Mention, ECO-Products Award 2006, Hong Kong (2006)
- Merit Award, Green Building Award, Hong Kong (2006)
- Gold Award - The 6th International Exhibition of Inventions (2008)
- Best Invention Award from Macao Foundation (2008)

Principal Investigator

Prof. Chi-sun POON

Department of Civil and Environmental Engineering

Contact Details

Institute for Entrepreneurship

Tel: (852) 3400 2929 Fax: (852) 2333 2410 Email: pdadmin@polyu.edu.hk

