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ECO-CRETE

INTELLECTUAL PROPERTY:
PATENT GRANTED (MY-172084-A) ◀
PATENT FILED (PI2019003950) ◀
PATENT FILED (PI2019003951) ◀

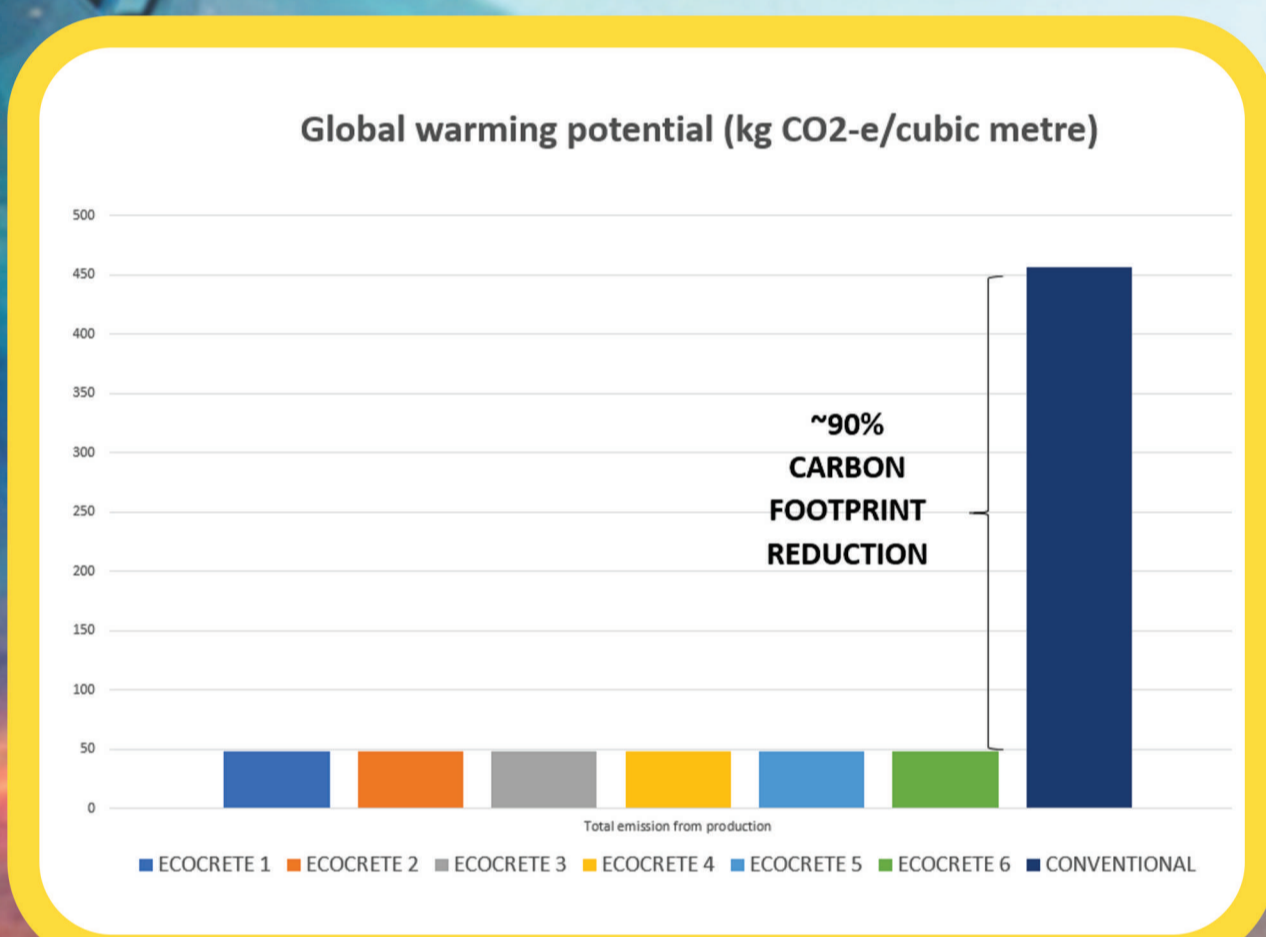


INTRODUCTION

ECO-CRETE technology encompasses material design and fabrication method which enable large volume reuse of industrial by-products to produce structural concrete.

NOVELTY AND INVENTIVENESS

- Hydraulic densification method for enhancement of concrete properties and materials packing.
- Synthetic aggregate of concrete from waste resources.
- Autogeneous crack sealing binder without Portland Cement.
- Reducing carbon footprint of concrete by up to 90%.
- Reducing degradation of natural environment due to sand and stone mining for concrete production.
- Effective management of solid waste from steel and quarry industry.



USEFULNESS AND APPLICATION

- Precast or ready-mix concrete for building construction.
- Material for water retention structure with self-healing of cracks.
- Eco-engineering components for marine shoreline rehabilitation.



STATUS OF INVENTION

- Hydraulic densified concrete technology is in use for development project in Batu Kawan and Penang Sentral Integrated Transport Hub.
- Prototype of Eco-Crete concrete building system is available.
- Full scale eco-engineering pre-cast Eco-crete component is available.

MARKET SIZE AND COMMERCIAL POTENTIAL

- The average annual gross value of the Malaysian concrete industry since 2011 is RM3.2 billion.
- Technology transfer to MDC Sdn Bhd enabled Eco-crete to be produced at the rate of 1.8 million cubic metres per year.



KNOWLEDGE MANAGEMENT

Patent Granted:
 MALAYSIA PATENT. MY-172084-A. method of fabricating concrete building blocks with low carbon footprint.

PATENT FILED

PI2019003950. A COMPOSITION FOR USE IN AN AQUATIC ENVIRONMENT. MALAYSIA PATENT OFFICE.
 Pi2019003951. A CEMENTITIOUS COMPOSITION FOR STRUCTURAL APPLICATION. MALAYSIA PATENT OFFICE.

JOURNAL PUBLICATION

4 ARTICLES IN ISI Q1 JOURNAL.



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