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METHOD OF PRODUCING HEAT TREATED PLANT- BASED COARSE AGGREGATE FOR CONCRETE



▶ MORE INFORMATION

MEGA-TREND

- **SMART Cities and SMART Infrastructure**

TECHNOLOGY READINESS LEVEL (TRL)

- **TRL 4 (Lab Prototype - Lab Testing)**

PATENT/ GRANTED NUMBER

- **PI 20137022115**
- **PI 2013701946**

▶ TECHNOLOGY OVERVIEW

The present invention provides a method to produce heat-treated oil palm shell coarse aggregate via heat treatment at 60C for 0.5 hours and grout coating of 1.2 water w/c formulation, as lightweight concrete production. With the use of treated oil palm shell coarse aggregate, properties of the lightweight concrete produced are enhanced, including high comprehensive strength, dimensional stability and good resistance to harmful organisms. This invention is environmentally friendly as it utilizes oil palm shell, a waste material. As wood type substrate does not contain any compound containing heavy metals, the use of oil palm shell via this method will not negatively impact the environment during use or disposal thereof.

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