

<http://timesofindia.indiatimes.com/>

Eco-friendly cement from old toilets?

Apr 7, 2014

WASHINGTON: Discarded toilets, along with other ceramic waste such as basins, stoneware and bricks, can be recycled into an eco-friendly form of cement, scientists say.

The method involves grinding the ceramic waste and mixing it with an activator solution and water. The mixture is then poured into a mould and subjected to a high-temperature hardening process. Researchers conducted tests with items made from red-clay brick waste and found the cement was actually stronger than types that are currently in common use, 'Gizmag' reported. They are still evaluating the strength of cement made with other forms of ceramic waste.

Currently, researchers are using sodium hydroxide or sodium silicate as activators. The researchers, from Spain's Universitat Politecnica de Valencia and Universitat Jaume I de Castellon, Imperial College of London, and the Universidade Estadual Paulista of Sao Paulo in Brazil, are looking into using rice husk ash as an activator. If it could be used, the result would be a cement made entirely from waste materials. The eco-friendly cement could be used as an alternative to Portland cement, which is the world's most widely used form of cement, they said. Production of Portland cement releases large amounts of carbon dioxide, and the material is considered a major contributor to global warming.