

By ~~June 2007~~ Dorneanu, Science Editor

What Do You Get From Mixing Grass and Concrete? Grasscrete

A new building design that looks and feels like a green garden

A team of researchers in the UK created a strange mixture between concrete and grass, called Grasscrete, an ecological alternative to classic building materials, designed to create footpaths while leaving room for greenery. It looks interesting, giving the feel of an old alley where grass started growing over the years in the spaces between rocks. From a distance, it almost looks like a garden, when in fact it's as strong as concrete. They intend to use the innovative design as a part of Olympic Forest Park in northern Beijing, a multimillion-dollar, a 680-hectare space being built for the next year's Olympic Games. If cleaning up the city is not possible - 10 years ago one could smell roasting coal because people had coal burners in their home - they are trying to recreate a sort of illusion of greenery with this building and decorative material. The product is not made of pre-cast blocks, it's actually a cast on site cellular reinforced concrete system with voids created by re-cycled plastic formers, a type of construction that offers significant structural advantages over pre-cast concrete and plastic systems. Concrete is a construction material that consists of cement, aggregate (generally gravel and sand), water and admixtures, which solidifies and hardens after mixing and placement due to a chemical process known as hydration. It's not only meant to look nice and green, but it has also been created to withstand load bearings of up to 40 tonnes of gross vehicle weight (a normal tank has around 60), to resist differential settlement and to reduce sub-base depths. The fact that it only looks like grass, but doesn't actually rely on it for stability, makes it a strong building material, as good as any concrete pavements. It's also washable and it has very good drainage capabilities, better than concrete-based applications.