

## Green cats eye up new kitty litter

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The cat litter has small a amount of absorbent polymer, which is also used in nappies to soak up waste.

(PhysOrg.com) -- Scratching around in the kitty tray could soon be a greener experience for cats in the UK and world-wide, thanks to a new type of low-cost cat litter developed by researchers at Imperial College London, in partnership with a leading supplier of pet products.

Currently, the biggest selling types of cat litter products are low-cost brands that are primarily made from <u>clay minerals</u> such as bentonite and sepiolite, which are mined and imported from quarries in Mediterranean countries. However, these products have a significant <u>carbon footprint</u> and high product miles because they have to be transported over <u>long distances</u>.



Now, the Imperial team, working with the pet products company Bob Martin, has developed a new type of low-cost cat litter that is made from waste material already available in UK quarries, making the cat litter more sustainable. The new cat litter does not have to be transported far to be either processed or sold, reducing its impact on the environment. It is expected to be available in leading supermarkets from 2012.

One of the challenges for the team was to develop cat litter with the absorbent qualities of the minerals used in imported cat litter products.

The researchers had to augment the quarry waste material, which primarily consists of limestone fines, so that it could become more absorbent. The team mixed the <u>waste material</u> with an organic binder and a small amount of absorbent <u>polymer</u> used in nappies to soak up waste. The ingredients were then mixed and dried to produce a granular cat litter product.

Dr. Chris Cheeseman, Department of Civil and Environmental Engineering at Imperial College London, who worked on the project, says:

"Most people would not realise all the stringent tests that all products have to go through before they reach the consumer. Even humble cat litter! We had to develop a product that was absorbent and robust enough so that it didn't end up as pulverised dust when tipped out of a packet. We even had to make sure that cat litter did not stick to pussy paws and leave cat tracks throughout the house. On a more serious note, it was great working with Bob Martin on this project. We have developed a potentially world leading product that could be manufactured and marketed anywhere in the world where people keep cats."

The team behind the new cat litter also believes that the engineered granule technology they have created could be adapted for use in a range



of other applications including new engineered de-icing grits for roads, soil supplements to increase the efficiency of water irrigation and speciality horticultural products.

## Provided by Imperial College London

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