

Indiana to test 'magment': a magnetized concrete to charge electric vehicles

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Credit: Magment

The governor of Indiana has announced that the Indiana Department of Transportation and Purdue University will soon begin testing the viability of "Magment"—a magnetized concrete for use in charging electric vehicles as they drive. Magment was developed by a German company with the same name.

Several initiatives have been developed in the past several years aimed at charging [electric vehicles](#) as they drive by, providing power from the [road](#) or a strip near it. In this new effort, a team of researchers from Purdue University, working with road engineers from INDOT will construct a small stretch of road on or near the Purdue campus this summer. If testing is successful, another road section will be built, this time a quarter-mile section at an INDOT location. There, the road will be tested with electric trucks requiring a minimum of 2000 kilowatts. If the second test goes well, INDOT plans to add a section of the material to an as-yet unknown stretch of public road.

Magment has not yet released many technical details regarding its product but its website shows road (or floor) segments made of magnetized particles mixed with concrete are applied to a

substrate. This would differ significantly from the way that roads are normally made—typically, material is poured and dumped into a prepared pathway and then tamped and smoothed. Also unclear is how such a road would be electrified and whether the roadways would be safe for pedestrians. The Magment page claims that their product is able to transfer power from the road to a vehicle with 95% efficiency. They also claim that it can withstand all [weather conditions](#), has a high degree of thermal conductivity, is safe from vandalism and does not cost more to use than standard road building materials. They also note that Magment could be made locally, via licensing, if a state such as Indiana wished to go that route.

The project in Indiana is being paid for by the National Science Foundation—it will be part of the Advancing Sustainability through Power Infrastructure for Road Electrification project. It is not yet known if Indiana officials plan to deploy Magment in other future projects if its initial installation goes well.

More information: Magment:

www.magment.co/wireless-charging-segment/

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