Validation for graphene geotextiles

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ROSEBERY – Imagine Intelligent Materials, based in Rosebery, Australia, has announced the completion of a second 10,000 square metre installation of nonwoven geotextiles made functional by coatings of its imgne X3 graphene solution.

The company reports that it has further orders for installations requiring 100,000 square metres in the next few months.

Working with Geofabrics Australasia of Melbourne, Imagine IM has already helped

make a range of conductive geotextiles – Geofabrics Bidim with imgne X3 – that are now successfully being used as leak detectors, with the latest installation being at a Queensland coal seam gas site.

The expansion of coal seam gas mining is driving growth of geosynthetic sales at a much higher rate than the general market and imgne X3 allows operators to reduce the risk of leakage of toxic leachate from such sites into groundwater and aquifers.

The conductive graphene coating enables the detection of holes as small as 0.7mm using pre-existing, proven electrical testing techniques.

Imagine IM is one of a handful of companies globally that has established paths to market for graphene. The company has also established Australia's first commercial graphene manufacturing plant with a capacity to produce over 10 tons of graphene per year.

"These installations validate our ability to deliver solutions for civil engineering and infrastructure," says Imagine IM CEO Chris Gilbey. "Geosynthetic materials are a key component of all infrastructure building, and mining, waste and water management represent a major market opportunity for us. Installers told us that they were impressed by both the efficiency of the product and the ease of installation. This is an important first step toward delivering our vision of graphene-enabled smart materials that can report changes in stress, temperature and moisture in real-time. Our vision is for our solutions to be a valuable component of both manufacturing and infrastructure in the future."

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