A different approach to graphene based products industrialization.

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Our group developed a unique technology to easily apply a thin coating of graphene nanoplatelets to a wide range of materials e.g. polymer, ceramics, metal, etc. The water based graphene suspension produced by GNext allows creating a conducting semi-transparent graphene coating of thickness as low as 10 nm with a sheet resistance as low as 1 KΩ/sq, or 15 Ω/sq for heavily charged non-transparent coating.

Low cost industrial process joint with a technology ready to be applied on already existing industrial plant, allows GNext to produce commodity products based on the wonder material. This is a complementary approach to the costly CVD graphene production which allows to transfer the graphene research into real consumer goods.

GNext manufacturing process does not involve the use of any toxic or harmful exfoliating agent, neither any dangerous technique. The whole production and processing is performed at low temperature, allowing simple deposition on any polymeric substrate.

The new technology allows producing ink to print electrical conductive pattern with different technologies: rotogravure, inkjet and screen-printing at volume resistivity below 4 ohms/sq/mil.

One of the main barrier for the graphene market explosion is the price. Coating technologies allow to dramatically reduce the price, compared to bulky application, at far better performance.

Figures

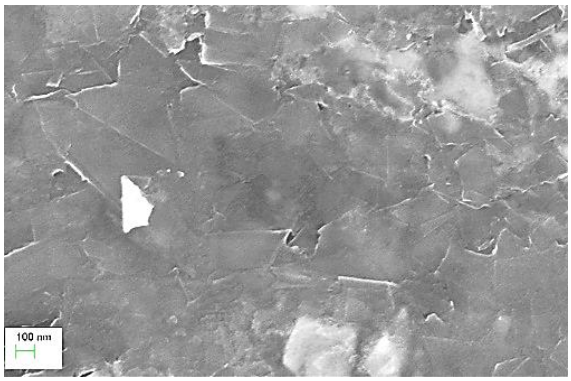

Figure 1: SEM image of GNext coating over polyester polymer.

Figure 2: Printed conductive pattern with GNext ink on transparent polyester film.