Graphene-Enhanced Composites

Graphene is a carbon nanomaterial that can be added in small quantities to a polymer composite to enhance its properties or even introduce new functionality. Improvements in mechanical performance, thermal conductivity and electrical conductivity have all been observed, allowing the use of composites to be extended into new areas.

Automotive Seat Back

This automotive seat back component demonstrates the substitution of a metallic structure with a composite replacement. The graphene enhances the mechanical properties of the glass-epoxy material whilst also engendering sufficient electrical properties to allow the electrostatic deposition of paint.

Can we help you with your Material & Process Development requirements?

Whether it's thermosetting or thermoplastic composites, biocomposites or nanocomposites, we can help you develop a material or process that meets your requirements.

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The Importance of Dispersion

For the property-enhancing benefits of graphene additives to be maximised, it is important to ensure that the particles are well dispersed.

Coventive Composites has been focussing on how this can be achieved with resin-impregnated fabric materials ("prepregs"). Prepregs are particularly suited to graphene modification because the flow of resin can be well controlled.