

An overview of the UK's surface measurement industry



Earlier this year we acquired Dyne

Testing Ltd, a supplier of surface measurement products. Here [Peter Swanson](#), (PS) Founder and Executive Chair of [Intertronics](#), sits down with [Alison Fox](#)-(AF), Brand Manager of Dyne Testing, to discuss trends in the UK's surface measurement market.

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PS: Can you give me an overview the surface measurement equipment user base in the UK?

AF: “Typically, 60% of surface measurement equipment applications come from industry, and 40% from academia. The technology is very useful in a research and development laboratory setting, as well as in manufacturing applications.

“In the UK, we see applications for surface measurement instrumentation across automotive, aerospace, motorsports, life sciences, electronics, printing, and energy storage in particular. Surface measurement can help check whether metals are clean enough for the next processing stage, or that plastics have a sufficient surface energy to wet inks that will be subsequently printed during the manufacturing of packaging, for example.

“Energy storage is a growing area for surface measurement technology – wettability is important at several different stages of Lithium ion battery manufacturing, including slurry preparation, coating and drying, calendaring, cutting and cell assembly, and electrolyte filling. With increasing demand for electric vehicles, manufacturers are looking for ways to optimise the manufacturing process – a better understanding of their components’ surfaces can aid this.

“Medical implants are another popular application. These materials must be biocompatible, which can be achieved with surface treatment or coatings. Measurement instrumentation can help design, fabricate, characterise, and evaluate the properties and performance of biomaterials. This helps to ensure biocompatibility and add desirable properties, like drug delivery capabilities or antibacterial qualities.”

PS: What are the typical challenges associated with wettability?

AF: “Wettability is a prerequisite of adhesion – for bonding, coating, painting or printing to be a success, the surface energy of the substrate has to be higher than that of the liquid. However, many modern plastics have low surface energies that make bonding a challenge. Surface measurement

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technologies help identify the cause of low wettability, so that manufacturers can optimise the surface preparation process to eliminate adhesion issues.

“Manufacturers may also face adhesion issues as a result of compromised cleanliness. Metal can become contaminated on a production line, and this can prevent successful processing later on. Handprints or cleaning fluids, for example, may mean that paint does not stick to the surface well enough. Surface measurement instrumentation means this can be characterised and dealt with.”

PS: What does this acquisition mean for Dyne Testing customers and the wider industry?

AF: “Dyne Testing focusses on surface measurement technology, and our equipment will help Intertronics’ customers better understand why a problem with adhesion might be occurring. -The acquisition gives Dyne Testing customers access to the wider Intertronics capabilities in terms of adhesives and coatings, and equipment for mixing, application, dispensing, and curing. We already have a good overlap in the customers we serve – around 75%. And these surface measure products marry neatly with the very popular [Relyon Plasma surface treatment](#) products.

“We’re planning on enhancing our service capabilities, quality of support, and speed of response – these have always been important things for the Dyne Testing brand, and they align closely with the values of Intertronics. We’re particularly excited that our customers will gain access to the Intertronics [Technology Centre](#) to do hands-on trials and tests.

“In terms of the wider industry, we’re anticipating new applications from emerging and growing industries, like battery technology and life sciences applications, as well as supporting more academics and universities. Alongside Intertronics, Dyne Testing will be well placed to build a full adhesives or coatings process that’s reliable, repeatable, and well understood.”

Struggling to bond your plastic components? [Get in touch](#) to arrange a demo of our equipment for surface testing, measurement and treatment.

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