

Case study: potting a bespoke telematics system

Bulk Tainer Logistics provides bespoke transport services for the shipment of bulk liquid products globally, operating a fleet of 12,000 chemical, feed, and food grade tank containers. To optimise the performance of its fleet, the company wanted to fit its tanks with smart monitoring devices that tracked the movement of the tanks and the condition of the product, while intelligently integrating data from other sources to plan routes according to weather conditions. Unable to find an off the shelf product that met its requirements, the company partnered with Waleed Elmughrabi and launched **Bulk Tainer Telematics**, a business dedicated to developing bespoke GPS systems specifically for the intermodal isotank sector.



One of the most important

requirements for the project was compliance with industry regulations, including ATEX and IECEx. Bulk

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Tainer Telematics therefore needed to pot their devices using specialised resins that met this explosion proof requirement as well as other regulatory needs.

To help specify materials and dispensing equipment, Bulk Tainer Telematics reached out to us. After listening to the requirements, we supplied Bulk Tainer Telematics samples of several flame retardant [potting compounds](#) for testing. Following testing, Bulk Tainer Telematics decided that a specialised polyurethane material would best meet its needs from both a performance and compliance perspective. The material is flame retardant to UL94 V-0 at 6 mm and has excellent adhesion to Bulk Tainer Telematics' substrates.

The material was paired with a [2-K-DOS Metering, Mixing and Dispensing System](#). The machine was designed and manufactured to match Bulk Tainer Telematics' process, customising the mix ratio, dispensing rate, and dispensed quantity, as well as adding a heating to improve material flow. Members of our team assisted Bulk Tainer Telematics with installation and provided the their team with training on how to use the system to achieve repeatable and accurate results.

"Because our project was so specialised, we required an adhesives partner that was knowledgeable and experienced. It became clear that we didn't need to consider alternatives, Intertronics were the right company to work with. In the end, many of our materials passed testing first time, saving us time in the testing and certification process." – Waleed Elmughrabi, Technical Director at Bulk Tainer Telematics.

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"By working closely with the Bulk Tainer Telematics team and listening to their requirements, we were able to help them build a process that was accurate and repeatable. The 2-K-DOS reduces the risk of human error to help achieve high levels of consistency, helping to ensure reliable product quality." – Paul Whitehead, Strategic Accounts Manager at Intertronics.

BTTM Tracker has passed its certifications and is currently being manufactured on a dedicated production line in partnership with a local manufacturer in North Yorkshire. The company aims to make 12,000 systems, one for each tank in its fleet.

You can read the full case study here: [Potting a bespoke telematics system](#)

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