

Case study overview

Vehicle restraint system (VRS) manufacturer Tertu enlisted the help of HORIBA MIRA Certification Limited to put a range of CE-marked guardrails through the new UKCA conformity process.

For this project, HORIBA MIRA Certification Limited drew on its extensive experience of working with vehicle restraint systems, both as a UKCA approved certification body and as an industry thought leader, that has played a key role in shaping many test and certification standards over the years.

Engineering team deployed: Three key personnel (principal assessor, support engineer and independent reviewer). All based at HORIBA MIRA's UK facility in Nuneaton.

Standards involved:

- EN 1317
- ISO 17065









We're known to be a particularly stringent certification body. It was essential for us that Tertu and its customers could rely on the thousandth kilometre of these barriers to perform just as well as the first.

Jamie Hughes, Principal Certification Engineer **HORIBA MIRA Certification Limited**



Approach

The certification process began with a thorough review of Tertu's product testing to ensure that both the results and the test procedures met the UK Conformity Assessment (UKCA) standards. Meanwhile, a product technical file was compiled and submitted for review by the manufacturer to document the design with data sheets and drawings.

The next step was a series of factory audits to ensure that the production parts conformed to the specifications established by the initial testing. Much of this was carried out under Covid restrictions, so the certification team had to develop new methodologies, such as virtual site visits, to complete this activity. The biggest technical challenge came from the sustainable timber used in the barriers' construction. Unlike traditional steel or concrete, timber is a heterogenous material with different grain structures and properties along its length.

The certification team had to research the relevant standards and tests that would ensure the material behaved adequately and consistently in all situations. This led a continual programme of material sampling and testing to capture the full range of variability presented by using natural materials.

Successes and benefits

The Tertu barriers were successfully certified for the UK market. Key points included:

- ✓ **New material structure** for UK market required research to ensure product safety needs for the UK were met
- Customer achieved market leading entry by meeting compliance requirements quickly
- ✓ Flexibility to work under Covid restrictions, including the **implementation of virtual site visits**, has created more efficient and **cost-effective** delivery methods
- ✓ Manufacturer benefited from an on-going certified test programme to ensure conformity of production was achieved



Deliverables

- UKCA compliance
- VRS assessment
- FPC audits
- ✓ CPR
- UKAS accredited
- Safer roads