



Super Armour – Made in the UK

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Invented, designed and manufactured in the UK, Super Bainite is an experimental high performance armour steel developed to save the lives of UK Armed Forces.

The MOD's in-house science and technology centre (Dstl) worked in collaboration with Cambridge University and QinetiQ to develop this unique product. Unlike conventional steels, the composition of Super Bainite was derived from first principles using thermodynamic modelling techniques. This allowed its processing, properties and cost to be optimised in months rather than years.

Whilst other armour steels need to be quenched and tempered, Super Bainite develops its properties by a completely new, low temperature mechanism called isothermal hardening. This enables ultra-high levels of hardness to be achieved without having to use expensive alloying additions.

Peter Brown, Dstl scientist says "Due to the unique process by which we have developed this new armour, Super Bainite is able to match the ballistic performance of the very best off-shore armour steels for a fraction of their cost."

Following successful industrial production trials, directed by Dstl in partnership with Corus and Bodycote, the first armour plates of Super Bainite have been manufactured and are now being used in ballistic testing.

Notes to Editors

Dstl (the Defence Science and Technology Laboratory) is the centre of scientific excellence for the Ministry of Defence, housing one of the largest groups of scientists and engineers in public service in the country. Its 3,500 strong workforce includes some of the nation's most talented and creative scientists with the brief to ensure that the UK Armed Forces and Government are supported in-house by world class scientific advice. Dstl delivers defence research, specialist technical services and the ability to track global technological developments. Its capabilities compare with the best in the world, supporting defence policy making and operations and procurement decisions. For more information visit www.dstl.gov.uk

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