

TEIJIN

Human Chemistry, Human Solutions



Whitepaper

In safe hands with Twaron

With over 125 years' experience in munitions and defense equipment, German-based Rheinmetall is one of Europe's foremost suppliers of army technology. Since the early 1990s, the company has been integrating Twaron into its defense solutions, not only because of the fiber's unique properties but also because of Teijin Aramid's reliable supply service. With the recent development of the armored Boxer vehicles, as well as the trends in the ballistic protection market, the collaboration between Teijin and Rheinmetall looks set to go up a level.

Twaron[®]

The power of Aramid

From cannonballs to laser technology

Rheinmetall was founded in 1889 as the “Rheinische Metallwaren & Maschinenfabrik Aktiengesellschaft”, with the mission of supplying the German Empire with munitions, including their unique steel cannonballs. Now, in the twenty-first century, and with over 20,000 employees, the company creates much more advanced defense solutions, such as its high-energy laser weapons. As part of this high-tech offering, Rheinmetall’s ballistic protection department also integrates advanced para-aramid fibers into many products, which protect the crews of civilian and military vehicles, aircraft and ships from ballistic threats and explosive devices.



Boxer: Optimum security, optimum mobility

In a joint venture with KMW called ARTEC, Rheinmetall developed the Boxer vehicle family. At Eurosatory 2014, the world’s largest land and airland defense exhibition, Rheinmetall presented an IFV (Infantry Fighting Vehicle) variant of this multirole-capable vehicle. Rheinmetall’s IFV Boxer is equipped with the LANCE 30mm two-man turret, and has attracted the attention of armed forces around the world. With Twaron-liner protection, as well as composite armor shielding, the Boxer combines a high level of personal security with excellent



mobility. “When it comes to infantry fighting vehicles, both mobility and protection are very important,” says Onno ‘t Hart, Managing Director of Rheinmetall’s ballistic protection department. “Twaron is a great material because it allows our vehicles, such as the Boxer, to face the challenging requirements of today’s battlefields around the world.”

Teijin Aramid, a strategic supplier

“Since Twaron allows us to add high value to our end products, Teijin Aramid is one of our strategic suppliers,” says Onno. “Teijin has been a long-term partner, and we’ve always been very pleased with their customer service. They’re able to provide us with a lot of technical know-how on ballistic protection, and they make a conscious effort to meet our requirements. What’s even more important, they can supply a variety of options for ballistic protection that meet the requirements of different threat levels.”

Taking aim at the future

“Trends in the ballistic protection market offer huge growth opportunities for Rheinmetall in the next few years,” says Onno. “Until relatively recently, only frontline battlefield vehicles required high levels of ballistic protection. Nowadays, however, a high level of protection is also essential in technical and logistical battlefield vehicles. Because of this, Rheinmetall Ballistic Protection based in Krefeld is experiencing rapid growth – we aim to significantly boost our turnover in the next few years. We hope that, together with our strategic partners, including Teijin Aramid, we can make the most of these exciting opportunities!”



For more information, please email us at ballistics@teijinaramid.com or visit www.teijinaramid.com

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