DEVELOPMENT, TESTING AND QUALIFICATION

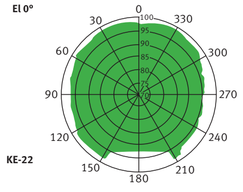
All technologies and solutions are tested at Rheinmetall's own test laboratories according to the actual standard STANAG 4569 Edition D or customer specific specifications.

Qualification tests are done with national authorities or independent Third Party test houses.

Indoor test range

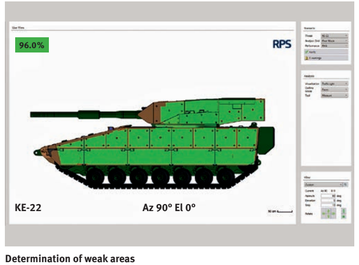
EPCAT SIMULATION

Rheinmetall uses **EPCAT** simulation software for structural weak area analysis as required by AEP55 to become part of the certification of the protection kits.



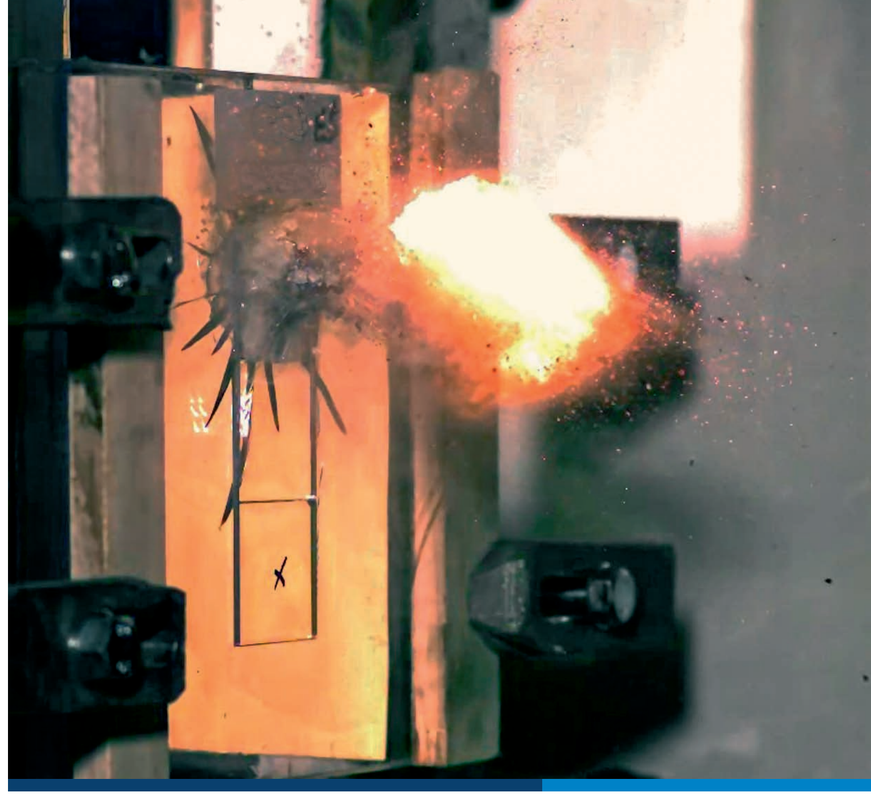
Analysis protection coverage

Medium-calibre test range



Determination of weak areas

Rheinmetall Protection Systems GmbH
Pützchens Chaussee 58a
53227 Bonn, Germany
info-rps@rheinmetall.com
www.rheinmetall.com



BALLISTIC**PROTECTION**

SOLUTIONS FOR LIGHT TO HEAVY COMBAT VEHICLES

COMPREHENSIVE TECHNOLOGY PORTFOLIO AGAINST ALL RELEVANT THREATS

RHEINMETALL

FULL SPECTRUM OF TECHNOLOGIES TO PROTECT AGAINST ALL RELEVANT THREATS

Rheinmetall has a full spectrum of protection technologies at military vehicles specifically tailored to customer needs and specifications.

The protection ranges from technologies against small calibre handheld weapons over mid calibre weapon up to large calibres of main battle tanks.

Most protection technologies composite materials such as combinations of fibres with ceramics or metals. Rheinmetall has also triggered the development of specific material recipes providing outstanding ballistic performance.

DEVELOPMENT OF WEIGHT/PERFORMANCE OPTIMIZED PROTECTION KITS

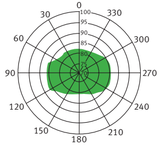
Rheinmetall ballistic protection technologies are based on over more than 30 years of experience and more than 50,000 test protocols. This forms the basis for the development of high-end protection kits.

Based on this technology database Rheinmetall has developed the simulation software **EPCAT** for threats in the range STANAG 4569 Level 1 to Level 6 and large calibres, allowing an optimized design of protection kits for any type of vehicle.

From the start Rheinmetall engineers can select and integrate most suitable technologies and adapt them to the configuration of the hull and the performance specification.
During the process, the ballistic performance of the entire kit can be analysed and further optimized before entering the test and qualification phase.
With the results of the performance simulation, the amount of testing, development time as well as risks and costs are reduced.

INITIAL DESIGN

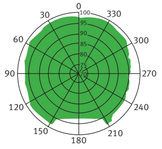
44 %



Armoured vehicle without add-on-armour

OPTIMIZED DESIGN

93 %



Armoured vehicle with add-on-armour

INCREASING THREAT LEVEL

ASSAULT RIFLES

Caracal 4x4

Gerlach 4x4

SNIPER RIFLES

Pandur EVO 6x6

MACHINE GUNS

Rosomak 8x8

MACHINE CANNONS

Lynx IFV

TANK ROUNDS

Strv 122