

# USE OF STEEL FIBER CONCRETE FOR PROTECTIVE COMPONENTS

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## ABSTRACT

As a part of a research project at the University of the German Armed Forces we investigate steel fiber concrete for use in protective components. Already carried out literature studies are completed by substantiated experimental studies with gunfire and contact detonations on protective components.

In foreign missions German Armed Forces infrastructure is permanently threatened by terrorist attacks. These scenarios have to be considered in construction and design. It must be ensured that, for protection components local damage zones don't impair the global structural behavior. A limitation of local damage can be ensured by the concrete composition, the specimen thickness and by attaching additional elements such as gabion baskets or steel plates.

The aim of the German Armed Forces is to promote the regional economy in foreign missions and to use the locally available knowledge and resources. The education and training of the local people is also an important aspect in foreign missions to thereby afford simple development assistance. In this research project a steel fiber concrete produced with local material this is available in out of area missions, is being investigated under gunfire and contact detonations. In contribution to the lack of knowhow and high-quality material components the investigation is carried out using low standard concrete mixture with low compressive.