# **Honeywell Ballistic Materials**



**Technologies for Helmets** 

## Honeywell Spectra Shield® and Gold Shield® Ballistic Composite Materials for Helmets

As threats to military and law enforcement personnel evolve, helmet manufacturers are faced with the challenge of pairing helmet performance improvements with reductions in weight. For more than 20 years, Spectra Shield® ballistic materials have been designed to meet this challenge by providing superior ballistic and fragment protection performance at the lowest possible weight.

# Material Development and Beyond

Honeywell materials have been designed for a diverse range of applications and requirements. From fighter aircraft helmets to next-generation ballistic combat helmets, they are helping to define future performance specifications. At Honeywell, we develop advanced ballistic materials that aim to be as tough as the people that wear them.

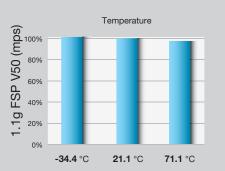
Honeywell research and development engineers go beyond materials development and partner with helmet manufacturers to optimize every aspect of helmet design, including:

- Ballistic protection
- Backface protection
- Weight reduction
- Manufacturer support
- End-user support



# Weight Weight Weight 200 Weight

5.0 kg/m<sup>2</sup>



· Test used panels of Spectra Shield 3136

7.5 kg/m<sup>2</sup>

Panels used in temperature study have an aerial density of 7.5 kg/m²

10 kg/m<sup>2</sup>

**Weight and Temperature Performance** 

Spectra Shield ballistic materials provide lightweight fragmentation protection and stable performance for a variety of conditions.



The Honeywell Advantage: Honeywell's ballistics laboratory offers customers the ability to test Spectra Shield- and Gold Shield-based helmet designs to help ensure they meet their specific performance requirements.

## A Proven Track Record

Military and police organizations around the world rely on Honeywell's technology. Today, the U.S. Special Forces and U.S. Army are among the many organizations that are working with Honeywell to develop helmet solutions using our ballistic materials. Combat helmets containing our ballistic materials also protect soldiers in Asia.

## **Technical Capabilities**

Honeywell's state-of-the-art applications laboratory allows for the rapid creation of new materials and technologies in support of current and next-generation helmet research and development. From material design to prototype helmet manufacturing and end article testing, Honeywell offers customers a complete in-house facility that is designed to quickly and effectively develop best-in-class helmet offerings.

## Honeywell Advanced Fibers and Composites

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