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BALLISTIC CMU BLOCK

PRODUCT OVERVIEW:

The 3B Protection Ballistic UL Level 10 CMU (Concrete Masonry Unit) Composite Material Block is an advanced security product designed to offer the highest level of ballistic protection while maintaining the structural benefits of traditional masonry construction. This block is engineered to withstand extreme ballistic threats, making it suitable for use in the most secure environments where safety and durability are paramount.

KEY FEATURES

MATERIAL COMPOSITION:

- **HIGH-DENSITY COMPOSITE MATERIAL:** The core of the block is made from a high-density composite material, providing a solid base that contributes to the block's overall structural strength and resistance to impact.
- **COMPOSITE REINFORCEMENT:** The concrete core is enhanced with a composite material specifically engineered to meet the UL 752 Level 10 standard. This composite layer is designed to absorb and dissipate the energy from powerful ballistic impacts, such as those from a .50 caliber rifle (BMG). The use of advanced materials, ensures that the block can stop high-velocity projectiles and prevent spalling (the breaking off of material on the opposite side of the impact).

DESIGN AND STRUCTURE:

- STANDARD CMU SIZE AND FORM FACTOR: The UL Level 10 CMU Composite Material Block retains the standard dimensions of traditional CMU blocks, allowing for seamless integration into conventional masonry construction. This makes it possible to build walls that provide top-tier ballistic protection without altering the basic construction process.
- LAYERED PROTECTION: The composite materials are strategically layered within the block, creating a multi-barrier system that enhances its ability to resist penetration from high-caliber rounds. Each layer serves a specific function, whether it's initial impact absorption or energy dispersion.

BALLISTIC PROTECTION:

- **UL LEVEL 10 RATING:** As a UL 752 Level 10 certified product, this block is designed to stop multiple hits from a .50 caliber rifle, one of the most powerful firearms in use. This level of protection is crucial for environments where the highest ballistic threats are anticipated.
- **SPALL LINER**: To prevent injury or damage from spalling, the block often includes a spall liner, which captures any fragments or debris that may be generated upon impact, further enhancing safety.

APPLICATIONS:

- MILITARY AND DEFENSE FACILITIES: Ideal for constructing walls in bunkers, armories, and command centers, where the highest levels of ballistic protection are required.
- GOVERNMENT BUILDINGS: Used in the construction of secure rooms, safe havens, and other critical areas within embassies, consulates, and other government facilities.
- **CRITICAL INFRASTRUCTURE:** Suitable for protecting sensitive infrastructure like data centers, power plants, and financial institutions, where a breach could have catastrophic consequences.
- **HIGH-SECURITY COMMERCIAL AND RESIDENTIAL BUILDINGS:** These blocks are also applicable in the construction of safe rooms or panic rooms in high-end residential or commercial properties.

INSTALLATION AND CONSTRUCTION:

- COMPATIBILITY WITH TRADITIONAL MASONRY TECHNIQUES: Despite its advanced materials and high level of protection, the UL Level 10 CMU Composite Block can be installed using standard masonry techniques, making it accessible to a wide range of construction professionals.
- MODULAR INTEGRATION: These blocks can be used alongside other ballistic-resistant materials, such as ballistic glass and steel doors, to create a fully fortified structure.

SUMMARY

The 3B Protection Ballistic UL Level 10 CMU Composite Material Block represents the pinnacle of ballistic protection in masonry construction. By combining the structural advantages of traditional concrete blocks with cutting-edge composite materials, 3B Protection has developed a product capable of withstanding the most severe ballistic threats. This block is a critical component for any facility that requires the highest level of security, ensuring safety and peace of mind in the face of extreme danger.