



# TECHNICAL DATA SHEET

## Construction Grade Building Armor™ Admixture

# Amidon Shield™

### DESCRIPTION

Amidon Shield is a patent-pending **High Performance Shock Absorbing Concrete (HPSAC)**. Amidon Shield is designed to absorb kinetic impacts from objects and projectiles, absorbing and dissipating the energy while providing structural integrity for multi-story construction.

Amidon Shield protects lives by limiting spalling and secondary shrapnel. A third-generation construction-grade building armor from the world's most trusted HPSAC company, Amidon Shield is part of the Amidon Ballistic Concrete product line.



### FEATURES & BENEFITS

- Produces versatile structural concrete
- Exceeds 4,500 psi
- Absorbs and dissipates energy from ballistic attack
- Provides protection that surpasses UL 752 Level 10 Test Standards
- Outperforms NIJ (National Institute of Justice) 0108.01 Standards
- Superior flexural strength
- Added easily to ready-mix truck
- Replaces the need for expensive ultra-high-performance concrete (UHPC)
- Third generation High Performance Shock Absorbing Concrete (HPSAC)
- Compatible with most epoxy-based floor systems and a trial is recommended in advance.

### RECOMMENDED USES

Amidon Shield provides protection for any cast-in-place, tilt-up or precast wall systems that will be subject to man-made or natural damage such as:

#### Residential

Storm Shelters, Safe Rooms, Building Exterior Walls, Property Perimeter Wall Systems, Secure Garages

#### Commercial

School Safety and Security Structures, Secure Access Facilities, Storm Safe Buildings, Data Center Security, Houses of Worship Construction, Safe Offices, Safety Shelter Wall Systems, Secure Compartmented Information Facility (SCIF)

### PROPERTIES

*Amidon Shield Admixture can be added to the Amidon mix design at any location around the world.*

#### Compressive Strength ASTM C39

28-Day	5880 psi
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#### Flexural Strength ASTM C78

28-Day	1270 psi
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#### Split Tensile Strength ASTM 496

28-Day	560 psi
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#### UL 752

Rating	9mm, 5.56mm, 7.62mm, .50 caliber
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#### National Institute of Justice Standard 0108.01

Rating	9mm, 5.56mm, 7.62mm, .50 caliber
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Sources: SGS TEC Services Test Report, NTS Chesapeake Testing

#### Large-Scale Event

Hostile Vehicle Mitigation, Threat Barriers, Blast Mitigation Containers, Mobile Barrier Wall Systems

#### Local, State, Federal Government

Embassies and Consulates, Government and Municipal Buildings, Police Stations, Guard Houses, Safe Rooms - New & Retrofit, Entrance Vestibules, SCIFs - Above and Below Ground, Storage Depots (Ammunition & Fuel), Riot Control Barriers, Secure Lockers, Decorative Protection, Secure Access Structures, Structures Requiring Department of Defense Antiterrorism Standard Protection, Protection for Power Infrastructure



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### APPLICATION

Read Amidon Shield Application Document 1.1 & 1.2 before using this product. A pre-pour meeting with the general contractor, forming contractor, finisher, concrete supplier and materials testing engineer is strongly recommended. Treat construction joints and penetrations in accordance Amidon Shield Document 1.2. Dose Amidon Shield in consultation with an authorized Amidon Shield representative. Trial batches are required for first use with a concrete provider to determine actual plastic properties. Allow Amidon Shield admixture to mix a minimum of 15 minutes per cubic yard. Place and finish in accordance with ACI guidelines. Proper placement and curing are essential to achieve the performance and benefits of Amidon Shield. Cure in accordance with ACI 308.1 guidelines.

### LIMITATIONS

Amidon Shield is an effective ballistic system for structural concrete. It can only be used when following Amidon Shield Application Instructions 1.1 and 1.2. Amidon Shield cannot be used as an admixture for any mix design not specifically called out in Amidon Shield Application Instruction 1.1.

### SAFETY

The safety data sheet (SDS) for this product should be read before starting any work and referenced during work. Avoid contact with skin or eyes. Avoid breathing dust. Wear standard safety equipment and a dust mask, long sleeves, safety goggles, and impervious gloves.

### PACKAGING

Amidon Shield is available as a 7 cubic yard kit. All packaging utilizes water soluble bags and should be stored in a clean, dry location. The kit is shipped on a standard 40" x 48" pallet. Custom sizes are available upon request.

### SHELF LIFE

When stored in a dry enclosed area with original pallet wrapping and unopened bags, Amidon Shield has a shelf life of 2 years. Do not expose to ultra-violet light for prolonged periods. Materials should be stored indoors when not in use.

### LIMITED WARRANTY

Before Amidon Shield admixture is used in the field, and as a condition to the validity of this Limited Warranty, the producer will cast a test block measuring 24" X 24" X [the wall thickness to be not less than 8". After curing and before the product is used in the field, the Test Block will be shot by a qualified ballistic concrete testing provider and the test data will be recorded in the permanent records of the construction project.

Amidon Shield warrants that Amidon Shield products are free from manufacturing defects and comply with the specifications in the technical data sheets. CONDITIONS OF USE, SUCH AS SITE CONDITIONS, WEATHER, STRUCTURAL ISSUES AND OTHER FACTORS ARE BEYOND CONTROL OF AMIDON SHIELD; NO WARRANTY CAN BE GIVEN AS TO THE RESULTS OF USE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF FITNESS OF PURPOSE OR MERCHANTABILITY. Purchaser agrees to seek the advice of qualified professionals and to determine for themselves the suitability of the products for their intended purpose and assume all risks. This limited warranty contains the entire obligation of Amidon Shield.

### LIMITATION OF REMEDIES

Purchaser's sole remedy is limited to replacement of any product proven defective, or, at Amidon Shield's option, refund of the purchase price paid. Amidon Shield shall not be liable under any legal theory for special or consequential damages. No representative of Amidon Shield has the authority to make any representations of provisions except as stated herein. Amidon Shield reserves the right to change the properties of its products without notice.