

# Blast Mitigation Military Grade Polyurea Coating



**ArmorThane**

Protecting Your World.

## A New Level of Security

Our goal is to help build a more secure environment that reduces structural damage and injury or even death caused by targeted attacks with explosives. Coatings are used for both buildings and vehicles.

Looking at the anatomy of an explosion, most devastation occurs from the massive pressure that blows apart a structure. By forming a strong “skin” that holds the structure together and reduces fragmentation, the blast is less likely to cause severe damage.



## ArmorBlast Applications

While our coatings have been used for the Military, applications in today's terrorism-prone world extend much further. Coatings are used for both buildings and vehicles.

- Military Vehicles, Equipment, Bunkers and Facilities
- Political / Government Facilities, Executive Residences
- Public Buildings and High Visibility Venues
- Armored Vehicles, Banks
- Police Vehicles, Water Patrol Vessels, Barricades
- Limousines and Other Transportation Targets
- Exposed Pipes, Bridges, Chemical Tanks
- Sensitive Facilities Attracting Protestors
- Training Bunkers for Military and Police
- Combustible environments – chemical plants, refineries

## Chemical Composition

ArmorBlast and UltraBlast are developed from a two-component 100% solid polyurea. They can be sprayed at a wide range of temperatures from 18°F to 150°F. Temperature exposure ranges from -40°F to 350°F with high tear-tensile strength and chemical and water resistance. In addition to CMU structures, they can be sprayed on other substrates such as metal, concrete and foam blast mats. These seamless, waterproof coatings have no VOC's or solvents.



## Independent Testing

Testing of ArmorThane's military-grade material proves that the coatings significantly reduce building damage from explosion, compared to non-coated surfaces and other products.

The Missouri University of Science & Technology Explosives Laboratory tested ArmorBlast coatings on a structure of concrete masonry units (CMU) to simulate public buildings.

***“Previous blast tests by MO S&T researchers of other polyurea materials bonded to reinforce concrete showed that the polymer would debond, and in some cases split under blast loading,” reads the MO S&T report. “ArmorBlast proved to have extremely high elongation, toughness and adhesion.”***

**The Most Durable Protective Coatings Available**

## Beyond Blast Mitigation

In addition to reducing the impact of explosions, our coatings add maximum durability against extreme weather, earth tremors, excessive friction and highly corrosive chemicals. These events can cause consequential damage and costly environmental hazards. Coating items such as sewage treatment systems, excavating machinery, chemical tanks and containment linings will repair and protect from further damage. Ask us for more details on these issues.



## Mobile Coatings

In addition to fixed workshop locations, coating products can be sprayed any time, any place. And, unlike many other companies,



we custom-build trailers to meet your specifications. ArmorThane has all of the high-pressure and low-pressure equipment and supplies needed to be fast and efficient.



## Products and Processes Match Your Coating Needs

We have a number of coatings which are applied to blast mitigation projects including targeted attacks with explosives and combustible environments such as chemical plants and refineries. The goal is to create a blast-resistant barrier that reduces structural damage and injury or even death. Coatings help keep surfaces from fragmenting under massive pressure. They are used for both buildings and vehicles.

Please visit product pages on our website or call for specifications such as elongations, tensile and tear strength on these key items:

- ArmorBlast pure polyurea
- UltraBlast pure polyurea
- HighLine-510 pure polyurea

In addition, ArmorThane has coating products developed to help industries solve a variety of problems. Solutions may include:

- Coat multiple surfaces
- Protect against extreme temperatures
- Resist corrosion and abrasion
- Protect against high wear
- Create a leak-proof barrier
- Improve slip and skid resistance
- Add permanent color coating, signs
- Repair and prevent cracks

Ask us how coatings help to create a safer environment.



## Protecting Your World

**ArmorThane** is a multi-national company founded by Garry Froese, CEO, in 1989. We have facilities in the U.S. and Canada and export to large dealers around the world.

We specialize in the development, manufacturing and distribution of top-quality protective coatings, as well as the design and fabrication of commercial application equipment. Our products include pure and specially-formulated hybrid polyurea and polyurethane with spray and roll-on applications. We provide low and high-pressure spraying equipment and supplies for fixed locations. Plus, we custom-build mobile coatings units for travel to any project site.

In addition to Blast Mitigation projects, thousands of applications benefit from ArmorThane's protective coatings. If you would like to know more about specific products and applications, just give us a call.

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