

# Mil-Tough® ICB Blast and Ballistic Panels



Mil-Tough ICB Blast and Ballistic Panels are precast, reinforced Inorganic Composite Binder (ICB) panels built under controlled manufactured conditions to deliver reliable and predictable blast and ballistic mitigation performance for new and retrofit construction projects. Due to the higher level of strength delivered by the base Inorganic Composite Binder and the strength multiplier of its composite reinforcement, Mil-Tough™ ICB Blast Panels meet or exceed GSA blast performance in thinner and lighter forms without steel rebar or support structures. Panels are available in a number of sizes and level of threat protection as well as in a wide variety of finishes.

## Key Features and Benefits

- *Predictable and reliable threat protection in a thin and lightweight form*
- *Quickly and easily installed in both new and retrofit construction*
- *Able to accept pigments and a variety of surface finishes to mask the presence of threat mitigation measures*
- *Base material strength and the panels' composite and coating multipliers eliminate the need for steel reinforcement*
- *The base material, ICB, is self bonding and available in pre-mixed bags that can be sprayed or troweled on to affix or repair panels in place*
- *Custom sizes and threat protection levels can be addressed*
- *100% inorganic and a Green material*

## Mil-Tough® ICB Blast and Ballistic Panels

### ICB Properties:

Properties:	ICB	Portland Cement
Compressive Strength	8,000-12,000 psi	2,000-4,000 psi
Heat Resistance	>2,000 °F	Burns < 1,000 °F
Fire Resistance	>3 hour rating	No
Setup Time (affix and repairs)	20 min.	2-4 hours
Functional Cure Time (affix and repairs)	1 hour	1-28 days
Weight	30% lighter	
Waterproof	Yes	No
Salt-water Tolerant	Yes	No
pH Tolerant (3-11)	Yes	No
Thermal Expansion	Low	High
Green Material	Yes	No

### Panel Finishes and Coatings:

Finish Type	Description/Examples
Protective	PPG's Mil-Tough(tm) polyurea coating can be applied to ICB Blast panels to provide an enhanced level of blast/ballistic protection
Color	Pigments can be mixed into the surface layers of the panels to provide permanent coloring. Panels can also be painted with commercial-off-the-shelf (COTS) PPG paints and coatings
Texture	A wide range of textures, from smooth, polished stone-like finish to highly textured stucco-like finishes are available
Patterns	Molded patterns combined with proper color combinations can provide highly realistic facades. Brick/Mortar, wood grain and custom designs are feasible to integrate into Mil-Tough(tm) ICB Blast Panels

### Standard Panel Sizes (custom sizes available):

- 4'x8'x1.5"
- 4'x8'x3.5"
- 4'x14'x3.5"

### Contact Info:

Kevin Richardson  
 PPG Industries Inc.  
 412-820-8561  
[krichardson@ppg.com](mailto:krichardson@ppg.com)

The technical data presented in this bulletin is based upon information believed by PPG to be currently accurate. However, no guarantees of accuracy, comprehensiveness, or performance are given or implied. Continuous improvements in coatings technology may cause future technical data to vary from what is in this bulletin. Contact your PPG representative for the most up-to-date information.