



# Ballistic Resistant Thermoplastic Composite Panels



**Product Selection & Installation Guide**



**UL 752 & NIJ STANDARDS FOR BALLISTIC RESISTANT PROTECTIVE MATERIALS**

UL Rating	NIJ Level	Ammunition	Velocity	No. Shots	Composite Panel	Nominal Thickness	Nominal Weight
Level 3	Level III-A	.44 magnum lead semi-wadcutter gas checked	1350 ft/sec 411 m/sec	3	Thermoplastic Composite Panel Level 3	0.440 in 11.2 mm	3.9 lb/ft <sup>2</sup> 19.0 kg/m <sup>2</sup>



**WALSHIELD™ Thermoplastic Composite Panels**

WIDTH	LENGTH	THICKNESS	COLOR
48 in/122 cm	96 in/244 cm	0.44 in/11.2 mm	White, Grey, Black

**CUSTOMIZED PANEL SIZES AND COLORS AVAILABLE.**





**INSTALLATION**

## **INSTALLATION INSTRUCTIONS**

Ballistic resistant panels from FSJ Tactical can be field-fabricated using simple installation methods and common carpentry tools. Proper installation is necessary to achieve optimum ballistic resistance.

- 1.** Lay out the project to utilize the largest panel sizes to minimize the number of seams.
- 2.** WALSHIELD™ panels should be cut using a wood cutting blade with +/-45 degree teeth. Be sure to wear appropriate safety equipment including safety glasses and dust masks when fabricating.
- 3.** Secure the panels to steel or wood framing by mechanically fastening with heavy-duty wallboard or lag screws.
- 4.** When constructing walls, rest the initial course of panels firmly on the floor to avoid any unsupported panel weight on the wall framing.
- 5.** Reinforce all panel seams with a minimum 4 inch (10.16 cm ) batten of additional ballistic panel material. Position these batten strips to cover the seam and attach to both panels using appropriate wallboard screws.
- 6.** Use overlapping butt joints when installing panels into corners.
- 7.** Panels expand to absorb ballistic impact. When covering a sensitive substructure such as glass, shim the panels 3/8 inch (9.5 mm) to prevent impact shock damage.
- 8.** Panels can be finished by covering with drywall, paneling, painting, or wall covering. Painting or wall covering will require the use of a suitable primer. When applicable, fire tests shall be performed on a finished wall system.





**WALSHIELD™**

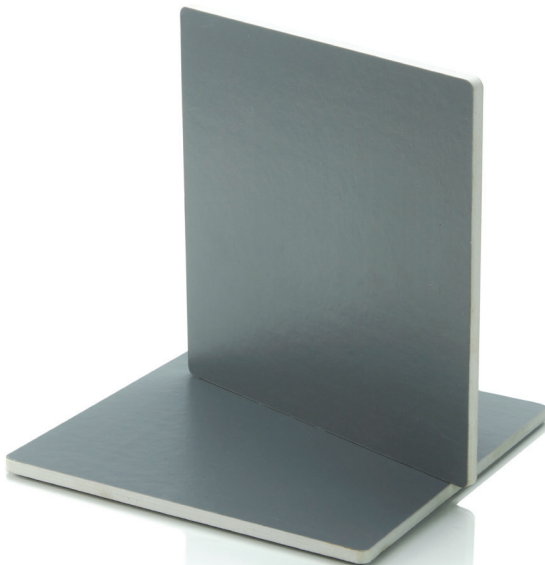
## KEY CHARACTERISTICS

WALSHIELD™ Thermoplastic Composite Panels are thermally formed with layers of 0°/90° unidirectional E-glass fiber reinforcements with polyolefin-based resin systems and are available for protection to UL 752 level 3. Additional protection against higher power ammunitions can be achieved by layering multiple panels; contact FSJ Tactical for information regarding your specific application.

### USES AND APPLICATIONS

Ballistic resistant composite panels from FSJ Tactical are suitable for indoor and outdoor use in commercial, governmental, industrial, and residential applications:

- Military Structures
- Check Cashing
- Courtrooms
- Bonded Warehousing
- Safe Rooms
- Infrastructure Facilities & Equipment
- Pawn Shops
- Police Stations
- Security Buildings
- Storm Shelters
- Banking
- Loan & Bail/Bond Offices
- Detention Facilities
- Equipment Storage
- Judges' Chambers



**TACTICAL**  
PERIMETER SAFETY SOLUTIONS™



**(602) 762-5650**  
fernando@fsjtactical.com