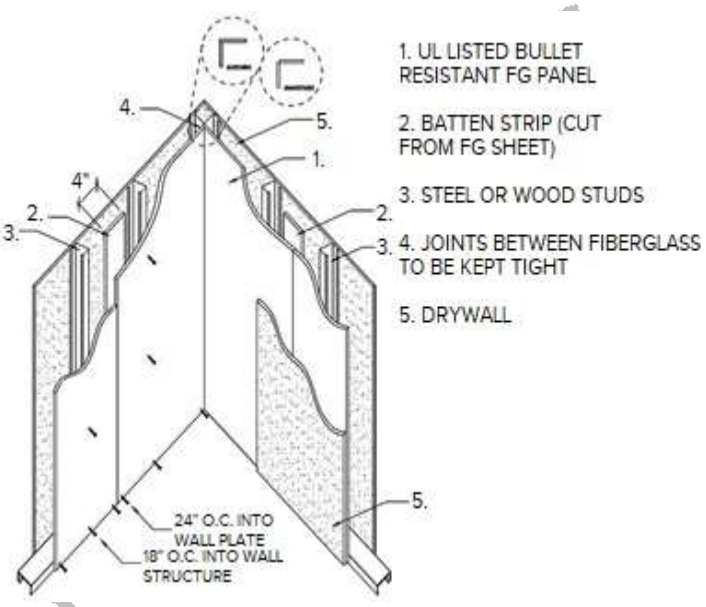
TOTAL SECURITY SOLUTIONS | PRODUCT SPECIFICATION SHEET

FIBERGLASS BR OPAQUE ARMOR

PRODUCT: BB-1

FEATURES

Fiberglass Armor is a reinforced structural polyester laminate that exhibits unique bullet resisting characteristics. These flat, opaque panels are press molded between plates at high pressure and elevated temperature. Fiberglass structural armor is designed to progressively delaminate as a bullet penetrates. The hard surface and toughness of the material cause the bullet to distort and flatten. As the bullet penetrates, the layers of (fiberglass) reinforcement within the laminate pull apart in a controlled manner such that the energy of the bullet is dissipated within the laminate. More energy is consumed as the bullet penetrates the high-strength glass fibers. No spalling occurs.



MARKETS SERVED

| Teller Counters | Gas Station | Convenience Store | Pay Counters | Remote Electronic Building | Secure Rooms and Buildings | Judge Benches | Reception Areas |

INSTALLATION

- For cutting, carbide or ceramic grit saw blades are recommended. Use carbide tooling when drilling, spot facing, or counter boring
- Butt joints are weak. To reinforce, use 4" strip of same material. No rigid high-density material should be used adjacent to panel's inner surface. Allow a minimum gap of ¼"

BALLISTIC RATING

- U.L 752 / Level 1
- N.I.J. 0108 / Level IIA

STANDARDS

- UL-94 V0 Flame Rating

AVAILABLE SHEET SIZES

| 3' X 8' | | 3' X 10' | | 4' X 8' | | 4' X 10' |

Consult TSS representative for custom sheet

PROPERTIES & SPECIFICATIONS

Nominal Thickness	LBS/SQ FT	Ballistic Data
1/4"	2.4	9MM | 124 Grams FMJ | Velocity 1 = 1175 FT/S Velocity 2 = 1090 FT/S

Properties	
Standard Color	White
Tensile Strength LW @ 25°C	45K PSI
Tensile Strength CW @ 25°C	40K PSI
Tensile Modulus AVG @ 25°C	3.75 X 10^6PSI
Flexural Strength LW @ 25°C	16.8K PSI
Flexural Modulus LW @ 25°C	2.7 X 10^6PSI
Compressive Strength @ 25°C	70K PSI
IZOD Impact Strength	52 ft.lb/in
Water Absorption	<1.4 % by wt
Specific Gravity	2
Barcol Hardness	50
Coefficient of Thermal Expansion	2in/in/°Cx10^{-5}
Thermal Conductivity	2 BTU/HR/ft^2/in/°F

TOTAL **SECURITY** SOLUTIONS
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