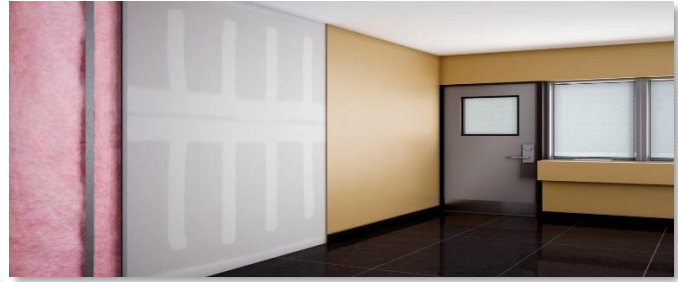


Forced Entry Resistant  
Wall Panels.



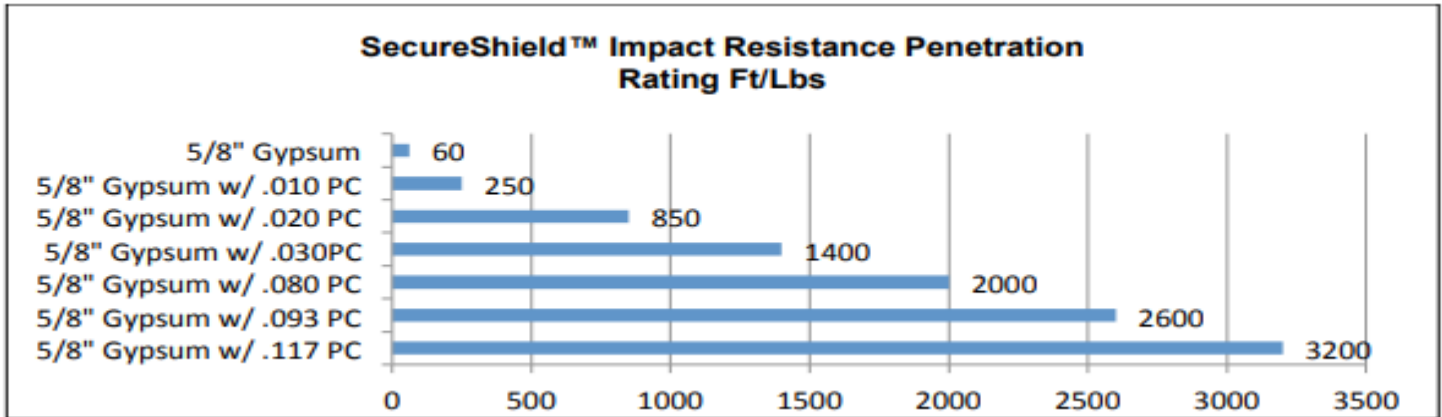
Nudo SecureShield™ Technical Data

NUDO SecureShield™ panels are solid sheets, composed of fire-rated drywall with and polycarbonate backer. This panel is designed for interior walls where forced entry resistance is needed. NUDO SecureShield™ is a non-load bearing wall that meets low to medium security requirements while allowing the designer to maximize on aesthetics. The panel has a Class A rating for flame spread and smoke development when tested per ASTM E-84 standards.

Physical Properties: Table 1

Property	Typical Value		Test Method
Tensile Strength, Ultimate	9,500	psi	ASTM D638
Tensile Strength, Yield	9,000	psi	ASTM D638
Tensile Modulus	340,000	psi	ASTM D638
Elongation	110	%	ASTM D638
Flexural Strength	13,500	psi	ASTM D790
Flexural Modulus	345,000	psi	ASTM D790
Compressive Strength	12,500	psi	ASTM D695
Compressive Modulus	345,000	psi	ASTM D695
Izod Impact Strength, Notched @ 0.125"	18	Ft-lbs/in.	ASTM D256
Izod Impact Strength, Unnotched @ 0.125"	60 (no failure)	Ft-lbs/in.	ASTM D256
Instrumented Impact @ 0.125"	>47	Ft-lbs	ASTM D3763
Shear Strength, Ultimate	10,000	psi	ASTM D732
Shear Strength, Yield	6,000	psi	ASTM D732
Shear Modulus	114,000	psi	ASTM D732
Rockwell Hardness	M70/R118	N/A	ASTM D785
Water Absorption @ 24hr.	0.35	%	ASTM D570
Coefficient of Thermal Expansion	1.93 X 10 <sup>-5</sup>	in/in/°F	ASTM D696





Physical Properties: Table 2

Part Number Identifier	Nominal Panel Thickness	Polycarbonate	FRP Color Options	Size
PB625-PC[Thickness]-[8, 10, 12]	.625"	.010" .020" .030" .080" .093" .118" .177"	Almond Beige Ivory Pearl White Silver	4'X8', 10', 12'

**Composition:** Fire-rated gypsum laminated to a polycarbonate backer. Optional FiberLite Textured or Smooth FRP may be added for additional function and finish.

**Preconditioning:** Prior to installing SecureShield laminated panel, remove the packaging materials and allow the panels to acclimate to room temperature and humidity for at least 48 hours. Ideally, the room temperature and humidity during acclimation and installation should be the same as the final operational conditions.

**Product Limitations:** SecureShield laminated panels are designed as an indoor wall and ceiling panel. It should never be exposed to extremely high or extremely low moisture conditions. Color distortion may also occur when panels are exposed to excessive heat source that exceeds 130F (54C), such as ovens, deep fryers, stoves, etc. Panels should be inspected on-site prior to installation. If any portion of the panels are not deemed acceptable, notify Nudo Product immediately. Upon verification of unacceptable panels, Nudo Product will replace that portion of the material, but will not take responsibility for the labor, other handling, or installation expenses.



#### *Finished Panel Quality, Fabrication & Handling*

- The front side of the panel shall be a smooth drywall paper or the optional FiberLite face.
- The Polycarbonate backside shall be smooth. Backside which do not affect functional properties are not cause for rejection.
- SecureShield laminated panels shall have good contact and uniform appearance over the entire surface of the substrate.
- Alignment and adhesive squeeze-out between laminate and SecureShield substrate will be to  $\pm 1/16"$  (1.5mm) on any edge.
- Panel weight will vary as a function of the panel configuration.
- Panel dimensional tolerances will be:
  - Width:  $+0" - 1/8"$  (4mm)
  - Length:  $\pm 1/8"$  (4mm)
  - Squareness:  $1/8"$  (4mm) in 48" (1.2m).
- Variation in panel integrity will be due to the substrate, not the laminate or adhesive bond.
- Please refer to NUDO SecureShield™ Installation Guidelines for cleaning instructions.
- Panels can be installed and fabricated with the same tools and techniques as ordinary wall panels. Carbide-tipped tools are recommended, as well as safety equipment. Eye protection and filtered mask should be worn during cutting and trimming operations. Additional Installation and fabrication instructions can be found in NUDO SecureShield™ Installation Guidelines.

**Storage:** SecureShield laminated panels should be stored horizontally indoors on a contiguous flat surface, in a dry location. Panels should never be stored on the floor or an outside wall. Exposure to humid or wet conditions prior to installation may cause moisture damage. Standing water on surface of panels prior to installation may cause color distortion. Optimum storage conditions are 60°F (16°C) to 75°F (24°C) and 35% to 55% relative humidity.

**Flame Spread and Smoke Development Ratings :** The numerical flame spread, and smoke development ratings are not intended to reflect hazards presented by Nudo Product, Inc. products or any other material under actual fire conditions. These rating are determined by small-scale tests conducted by Underwriters Laboratories and other independent testing facilities using the American Society for Testing and Materials E-84 test standards (commonly referred to as the "Tunnel-Test"). NUDO PRODUCTS, INC PROVIDES THESE RATING FOR MATERIAL COMPARISION PURPOSES ONLY. Like other organic building materials, (e.g. wood), panels made up of composite material will burn. When ignited, it may produce dense smoke very rapidly. All smoke is toxic. Fire safety requires proper design of facilities and fire suppression systems, as well as precautions during construction and occupancy. Local codes, insurance requirements and any special needs of the product user will determine the correct fire-rated interior finish and fire suppression system necessary for a specific installation.

**Disclaimer:** We believe all information given is accurate. It is offered in good faith, but without guarantee. Since conditions of use are beyond our control, the user assumes all risks. Nothing herein shall be construed as a recommendation for use that infringes on valid patent or as extending a license under valid permit. Nothing herein shall be construed as a recommendation for use or as extending a license under valid patent.

RESPONSIVENESS

CONSISTENCY

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