

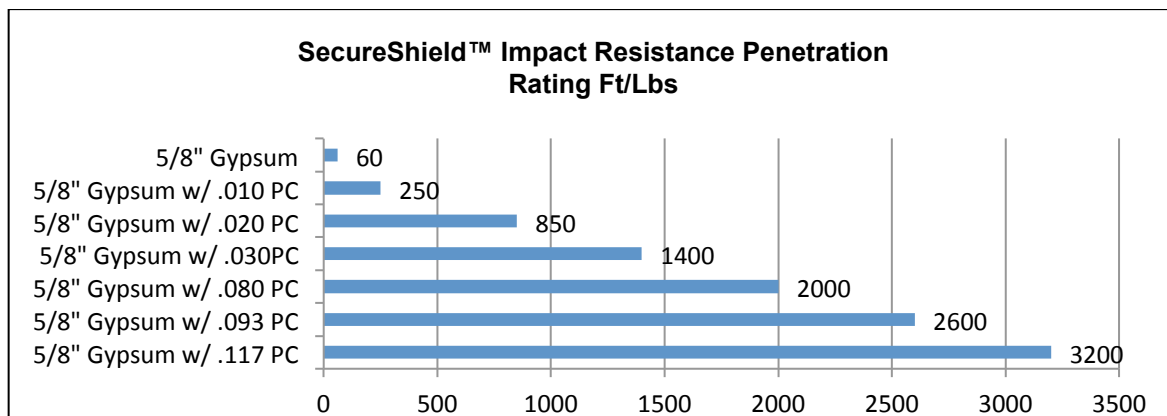
NUDO SecureShield™ Class A Forced Entry Resistant Wall Panels

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.

Physical Properties: Table 1

Property	Value	Measure	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	.35	%	ASTM D570
Coefficient of Thermal Expansion	1.93 x 10 ⁻⁵	in/in/°F	ASTM D696

Typical Values of Polycarbonate



Physical Properties: Table 2

Part Number Identifier	Gypsum	Polycarbonate	.090 FRP Colors Options	Size
PB-625-PC[Thickness]-[8, 10,12]	.625	.10" .020" .030" .080" .093" .118" .177"	Almond Beige Ivory Pearl White Silver	4' x 8', 10', 12'

SPECIFICATIONS: The NUDO SecureShield™ panels are manufactured with state-of-the-art laminating equipment and adhesives.

COMPOSITION:

Fire-rated drywall with and polycarbonate backer.

FINISHED PANEL QUALITY:

1. The front side shall be a smooth drywall paper, with the option of adding a smooth or embossed FRP to the face.
2. The polycarbonate backside shall be smooth. Backside imperfections which do not affect functional properties are not cause for rejection.
3. Physical properties shall be set forth in Table 1.
4. Product quality standards and tolerance for panel weight and thickness shall be set for in Nudo Product, Inc. Quality Control Procedures/Standards which are available upon request.
5. Dimensions shall be specified on purchased order, subject to the following tolerances:
Width: ±1/8" (3.2mm)
Length: ±1/8" (3.2 mm)
Squareness: not more than 1/8" (3.2 mm) out of square.
6. Panels shall be installed in accordance with the manufacturer's guidelines as set forth in the installation guide.

CERTIFICATION:

1. Meets the minimum requirements of the major model building codes for Class A interior wall finishes. Flame spread of less than 25, smoke development less than 450 per ASTM E-84.

FABRICATING RECOMMENDATIONS:

Note: Protect your eyes with goggles; cover your nose and mouth with a filter mask when cutting saw blade enters the decorative side first, to avoid chipping and damage.

Hand Fabricating: Drilling – high speed standard steel twist drill with an angular wedged bit. Carbide-tipped drills can also be used. Note: To result in cutting stress-free holes, maintain heat generated to an minimum.

Cutting: Circular saws, band saws, jig saws and hacksaws can be used. Tungsten carbide circular saws are preferred. (20° - 30° cutting angle, with 5° - 15° Rake Angle, Rotation Speed 1800-2400 m/min and 9-15mm Tooth Spacing.)

STORAGE:

SecureShield should be stored horizontally indoors on a contiguous flat surface. Panels should never be stored on the floor or an outside wall. Optimum storage conditions are 60°F (16°C) to 75°F (24°C) and 35% to 55% relative humidity.

PRECONDITIONING:

Prior to installing SecureShield, 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 operation conditions.

PRODUCT LIMITATIONS:

SecureShield is designed as interior forced entry protection panel. It should never be exposed to extremely high or extremely low moisture conditions. SecureShield is designed to be installed directly over studs. SecureShield should be installed between 60°F (16°C) to 75°F (24°C) and 35% to 55% relative humidity. Non-compliance with product limitations may affect future performance and voids warranty.

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 ratings 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 COMPARISON 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.

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.



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Form 3010N.A Rev. 1 8/13

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