

SecureShield panels are produced by laminating a fire-rated 5/8" gypsum substrate to polycarbonate and an optional FRP, fiberglass and calcium carbonate-filled polyester resin, or PVC overlay.

SecureShield panels are designed for interior, security wall applications where penetration resistance is needed. SecureShield is a durable wall panel that is resistant to penetration without the use of a mechanical device / tool. SecureShield panels have been tested for flame spread and smoke developed per ASTM E-84.

Table 1
Physical Properties

	Typical Value	Typical Value	Test Method
Property			
Surface Burn Test	Class A	Class A	ASTM E84
Flexural Strength	4,431	lbf/in ²	ASTM C393
Flexural Modulus	46,502	psi	ASTM C393
Flexural Load			ASTM D790
Tensile Strength	1048	psi	ASTM D1037
Tensile Modulus			ASTM D638
Barcol Hardness			ASTM D2583
Izod Impact	5.54	ft-lbs/in	ASTM D256

Table 2
Physical Properties

	Nominal Panel Thickness	Nominal Panel Weight	Color	Size
Part No.				
F3P250	.30" (3.8 mm)	1/4" Fir Exterior Plywood	Black, brown, light green, yellow, orange, dark gray, pearl gray, white, blue, red, bordeaux, beige, khaki, almond, bronze	4' x 8' 4' x 10' Non-standard sizes available in most colors, made-to order.
F3P375	.30" (3.8 mm)	3/8" Fir Exterior Plywood		
F3W375	.30" (3.8 mm)	3/8" OSB		
F3W420	.30" (3.8 mm)	7/16" OSB		
F3P250	.30" (3.8 mm)	1/4" Fir Exterior Plywood		
F3P375	.30" (3.8 mm)	3/8" Fir Exterior Plywood		

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F3P500	.30" (3.8 mm)	1/2" Fir Exterior Plywood		
F3W700	.30" (3.8 mm)	.700" OSB		
F3PB500-FR-MR	.30" (3.8 mm)	1/2" Fire-Rated Gypsum		
F3PB500-FR-MR	.30" (3.8 mm)	5/8" Fire-Rated Gypsum		
F3PB500-FR-MR-CT	.30" (3.8 mm)	1/2" Fire-Rated Gypsum	White Smooth only	2' x 2' 2' x 4'
F3PB500-FR-MR-CT	.30" (3.8 mm)	1/2" Fire-Rated Gypsum		
F3PB500-FR-MR-X-CT	.30" (3.8 mm)	Fire/Moisture Rated gypsum with 2" EPS		
F3PB625-FR-MR-CT	.30" (3.8 mm)	5/8" Fire Rated Gypsum		

Specifications

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

Composition

- Gypsum substrate.
- Polycarbonate backing. Performance is dependent on the thickness of polycarbonate; reference polycarbonate manufacturer for polycarbonate performance characteristics
- Finish is option: either embossed (Pebbled) FRP (fiberglass and calcium carbonate-filled polyester resin) or PVC (smooth)

Finish Panel Quality

- The front side shall be unfinished gypsum or option FRP / PVC finish. Colors shall be throughout the overlay panel, and manufactured as specified.
- Physical properties shall be no less than those set forth in Table 1 and/or further refined by polycarbonate selected in conjunction with gypsum supplied by manufacturer.
- 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.

- SecureShield shall not delaminate from the substrate, when edges are securely fastened to an adequate structural system, and when joints and edges are protected with a permanently flexible silicone type caulking compound and suitable vinyl or aluminum division bars.
- Alignment and adhesive squeeze-out between SecureShield laminate and substrate will be to +/- 1/16" (1.5mm) on any edge.
- Panel weight will vary as a function of substrate thickness, density, and moisture content.
- Dimensions shall be specified on purchased order, subject to the following tolerances:
 - Width: +/- 1/8" (4mm)
 - Length: +/- 1/8" (4mm)
 - Squareness: not more than 1/8" (3.2 mm) in 48" out of square
- Panels shall be installed in accordance with the manufacturer's guidelines as set forth in the installation guide.

Certification

- Meets the minimum requirements of the major model building codes for Class A interior wall finishes. Flame spread of less than 25, smoke developed 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 SecureShield panels. When cutting SecureShield, position the panel so that the saw blades enter the decorative side first, to avoid chipping and damage.

Hand Fabricating: Drilling – high speed drill bit (60° cutting angle, with 12° - 15° clearance) or hold saw. Cutting: 72-tooth circular saw with reinforced carbondrum or carbide-tipped blade.

Storage

SecureShield should be stored horizontally indoors on the contiguous flat surface, in a dry location. Panels should never be stored on the floor or against 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.

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 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 heat sources exceeding 130° F (54° C), such as in ovens, deep fryers, stoves, etc. Panels should be inspected on-site prior to installation. If any portion of the panels is not deemed acceptable, notify Nudo Products Inc. immediately. Upon verification of unacceptable panels, Nudo Products Inc. will replace that portion of the material, but will not take responsibility for the labor, other handling or installation expenses. 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.

Cleaning Instructions

SecureShield is easy to clean. In most cases, use a clean damp, non-abrasive cotton cloth and a mild liquid detergent or household cleaner. Always rinse with clean water and a clean, non-abrasive cotton cloth.

DO NOT USE: Abrasive cleaners with bleach, cleaners with acid, alkali or sodium hypochlorite. They will damage and permanently discolor the surface. Be sure that bottles, rags or other materials with these cleaners never come in contact with the surface. Examples of harsh cleaners to avoid include but are not limited to: Bleach, Drain Cleaners, Metal Cleaners, Oven Cleaners, Rust Removers, Tub and Tile Cleaners, Lime Scale Remover.

Removal of Stains

To remove stains, use full strength Fanstastik, all Purpose Cleaner, Formula 409, Pine-Sol, or other mild household cleaners. Blot with clean, damp, non-abrasive cotton cloth and rinse with clean water. When recommended cleaner changes its formulation, the change may be harmful to the surface. Nudo Products, Inc. cannot be held responsible for these changes. Follow all directions and warnings on the cleaner label because some are extremely flammable.

Dyes and pharmaceutical products will permanently stain the panels. These include hair dyes and rinses, silver nitrate, laundry bluing, tannic acid, povidone-iodine, dermatological tar compounds, and peroxide. To reduce these stains, apply a paste of baking soda and water on the area to pull out the stain. Do not rub, as the paste will be slightly abrasive. Wipe up the paste with a clean, damp, non-abrasive cotton cloth, and rinse with clean water.

Stains that are stubborn or even permanent and may not disappear include: wood stains, cash register inks, newsprint, marking pen inks, indelible ink, food pricing ink, and label inks.

Stubborn stains that may disappear on their own after a short time or after repeated cleaning include food stains, glass rings, water marks, coffee and tea stains.

FLAME SPREAD AND SMOKE DEVELOP RATINGS: The numerical flame spread and smoke developed 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 RATINGS FOR MATERIAL COMPARISON PURPOSES ONLY. Like other organic building materials (i.e., 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 considered as a recommendation for use that infringes on valid patent are as extending a license under valid permit.