NUDO®
A VERZATEC COMPANY

Technical Data

FiberLite® FRP

Moisture and Impact Resistant Wall and Ceiling Panels

Nudo FiberLite® FRP Technical Data

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Nudo FiberLite® FRP Technical Data Class C

Nudo FiberLite® FRP Class C panels are solid sheets, composed of fiberglass and calcium carbonate-filled polyester resin and comply with the ASTM D5319 Standard for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels. This embossed or smooth panel is designed for interior wall finishes where; washable, durable panels are needed. NUDO FiberLite FRP FRP is a durable, flexible building wall material that is resistant to mold, mildew and corrosion and meets the USDA guidelines. The panel has a Class C rating for flame spread and smoke development when tested per ASTM E-84 standards.

Physical Properties: Table 1

Typical Value			
Property	.090"	Measure	Test Method
Surface Burn Test	Class C	N/A	ASTM E84
Smoke Development	≤450	N/A	ASTM E84
Flame Spread Index	≤ 200	N/A	ASTM E84
Self Ignition Temperature	430°	Fahrenheit	ASTM D1929
Flash Ignition Temperature	450°	Fahrenheit	ASTM D1929
Flexural Strength	17,000	psi	ASTM D790
Flexural Modulus	6.0×10^5	psi	ASTM D790
Tensile Strength	8,000	psi	ASTM D638
Tensile Modulus	9.43×10^5	psi	ASTM D638
Elongation	1.20	%	ASTM D638
Water Absorption	0.17	72hrs. @21° C	ASTM D570
Izod Impact	7	FT-lbs/in.	ASTM D256
Coefficient of Linear Thermal Expansion	2.22×10^{-5}	50% Humidity Temp -23°C	ASTM D696
Barcol Hardness	30	Average	ASTM D2583
Specific Gravity	1.6138	N/A	ASTM D792
Abrasive Resistance	0.293	% Weight Loss	Taber

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Technical Data

FiberLite® FRP

Physical Properties: Table 2					
Part Number Identifier	Nominal Panel Thickness	Nominal Panel Weight	Color		Size
LP-F9 (Embossed)	.090"	0.65# psf	Almond Beige Black Blue Bourdeaux Brown Ivory Silver	Khaki Pearl Red White Med. Gray Dark Gray Pineapple	4'X8', 10' Non-Standard sizes available made-to-order
LP-S9 (Smooth)	.090"	0.65# psf	Almond Pearl	White Black	4'X8', 10'
LP-F5 (Embossed)	.050"	0.30# psf	White		4'X8', 10'
LP-F9-CT (Embossed) LP-S9-CT (Smooth)*	.090"	0.65# psf	White*	White Black	2'X2'
LP-F10-CT-FR (Embossed) LP-S10-CT (Smooth)	.100"	0.67# psf	White		2'X2', 4'

COMPOSITION:

- Fiberglass and calcium carbonate-filled polyester resin.

FINISHED PANEL QUALITY:

- The front side shall be embossed with a pebble type finish (embossed finished) or the panels shall have a wear side with a smooth finish (smooth). Colors shall be throughout the panel and manufactured as specified.
- The backside shall be smooth. Backside imperfections which do not affect functional properties are not cause for rejection.
- Physical properties shall be set forth in Table 1.
- 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.
- 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.
- Panels shall be installed in accordance with the manufacturer's guidelines as set forth in the installation guide.

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FiberLite® FRP

CERTIFICATION: Meets the minimum requirements of the major model building codes for Class C interior wall and ceiling finishes. Flame spread of less than 200, smoke development less than 450 per ASTM E-84.

FABRICATING RECOMMENDATIONS: Protect your eyes with goggles; cover your nose and mouth with a filter mask when cutting FiberLite FRP panels. When cutting FiberLite FRP, position the panel so that the saw blade enters the decorative side first, to avoid chipping and damage.

Hand Fabricating:

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

STORAGE: FiberLite FRP should be stored horizontally indoors on a contiguous flat surface. Protective film should remain on the panel until installation. 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 FiberLite FRP, 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: FiberLite FRP is designed as an indoor decorative panel. It should never be exposed to extremely high or extremely low moisture conditions. FiberLite FRP is designed to be installed over a solid wall surface and should never be directly installed over studs, concrete, concrete block, or non-insulated exterior walls. FiberLite FRP 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: FiberLite FRP is easy to clean. In most cases, use a clean, damp, nonabrasive cotton cloth and a mild liquid detergent or household cleaner. Always rinse with clean water and a clean, non-abrasive cotton cloth. Dry the panels with a soft, 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 Fantastik, All Purpose Cleaner, Formula 409, Pine-Sol, or other mild household cleaners. Blot with clean, damp, non-abrasive cotton cloth, and rinse with cleaner 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 many 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 past with a clean, damp, nonabrasive 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 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.

NUDO®
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Technical Data

FiberLite® FRP

Nudo FiberLite® FRP Technical Data Class A

Nudo FiberLite FRP™ Class A panels are solid sheets, composed of fiberglass and calcium carbonate-filled polyester resin and comply with the ASTM D5319 Standard for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels. This embossed or smooth panel is designed for interior wall finishes where; washable, durable panels are needed. NUDO FiberLite FRP is a durable, flexible building wall material that is resistant to mold, mildew and corrosion and meets the USDA guidelines. The panel has a Class A rating for flame spread and smoke development when tested per ASTM E-84 standards.

Physical Properties: Table 1

Typical Value			
Property	.090"	Measure	Test Method
Surface Burn Test	Class A	N/A	ASTM E84
Smoke Development	<450	N/A	ASTM E84
Flame Spread Index	≤ 25	N/A	ASTM E84
Self Ignition Temperature	430°	Fahrenheit	ASTM D1929
Flash Ignition Temperature	400°	Fahrenheit	ASTM D1929
Flexural Strength	10,000	psi	ASTM D790
Flexural Modulus	3.1×10^5	psi	ASTM D790
Tensile Strength	7,000	psi	ASTM D638
Tensile Modulus	3.1×10^5	psi	ASTM D638
Elongation	1.80	%	ASTM D638
Water Absorption	0.72	72hrs. @21° C	ASTM D570
Izod Impact	7.16	FT-lbs/in.	ASTM D256
Coefficient of Linear Thermal Expansion	$2.93X10^{-5}$	50% Humidity Temp -23°C	ASTM D696
Barcol Hardness	35	Average	ASTM D2583
Specific Gravity	1.5743	N/A	ASTM D792
Abrasive Resistance	0.391	% Weight Loss	Taber

Physical Properties: Table 2				
Part Number Identifier	Nominal Panel Thickness	Nominal Panel Weight	Color	Size
LP-F9-FR (Embossed)	.090"	0.65# psf	Almond Beige Ivory Pearl White Silver	4'X8', 10' Non-Standard sizes available made-to-order
LP-F9-CT-FR (Embossed)	.090"	0.65# psf	Almond Beige Ivory Pearl White Silver	2'X2'
LP-S9-FR (Smooth)	.090"	0.65# psf	White	4'X8', 10'
LP-S9-CT-FR (Smooth)	.090"	0.65# psf	White	2'X2'
LP-F10-CT-FR (Embossed)	.100"	0.67# psf	White	2'X4'
LP-S10-CT-FR (Embossed)	.100"	0.67# psf	White	2'X4'

COMPOSITION:

- Fiberglass and calcium carbonate-filled polyester resin.

FINISHED PANEL QUALITY:

- The front side shall be embossed with a pebble type finish (embossed finished) or the panels shall have a wear side with a smooth finish (smooth). Colors shall be throughout the panel and manufactured as specified.
- The backside shall be smooth. Backside imperfections which do not affect functional properties are not cause for rejection.
- Physical properties shall be set forth in Table 1.
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- 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.
- 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 C interior wall and ceiling finishes. Flame spread of less than 25, smoke development less than 450 per ASTM E-84.

FABRICATING RECOMMENDATIONS: Protect your eyes with goggles; cover your nose and mouth with a filter mask when cutting FiberLite FRP panels. When cutting FiberLite FRP, position the panel so that the saw blade enters the decorative side first, to avoid chipping and damage.

Hand Fabricating:

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

STORAGE: FiberLite FRP should be stored horizontally indoors on a contiguous flat surface. Protective film should remain on the panel until installation. 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.

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