

Nudo PolyMetal™ Panels Class A

Nudo PolyMetal™ sign panels are comprised of a recycled thermoplastic core sandwiched between two sheets of finished aluminum on one or two sides. The recycled thermoplastic core lends itself to resisting moisture. PolyMetal™ panels also feature the ability to digitally print direct to the panel, thereby allowing for complete design flexibility. PolyMetal™ is Class A fire rated and UL Tested for sign components and accessories.

Physical Properties: Table 1

Property	Typical Value		Test Method
Surface Burn Test	≤0 (Class A)	N/A	ASTM E84
Smoke Development	≤0	N/A	ASTM E84
Flexural Strength	10,208	psi	ASTM D790
Flexural Modulus	1,414,164	psi	ASTM D790
Flexural Load	41.8	lbf	ASTM D790
Tensile Strength	4084	psi	ASTM D638
Tensile Modulus	500353	psi	ASTM D638
Elongation	22.8	%	ASTM D638
Specific Gravity	1.17	50% Humidity Temp -23°C	ASTM D792
Izod Impact	5.7512	Ft-lbs/in	ASTM D256
Water Absorption	.019%	24 hrs @ 23°C	ASTM D570
Coefficient of Linear Thermal Expansion	4.31 x 10 ⁻⁵	50% Humidity Temp -23°C	ASTM D696-03

Product Description: Table 2

Part Number Identifier	Color	Skin Thickness	Panel Thickness	Nom. Wt. lb/SF	Sheet Size			Finished Sides
					4x8	4x10	5X10	
PM1-120BC-[Size]-PF2-	White	.008	3mm	1.0	X	X	X	2
PM1-120BC-[Size]-PF1-	White	.008	3mm	1.0	X			1
PM1-240BC-[Size]-PF2-	White	.008	6mm	1.6	X	X		2
PM1-120BC-[Size]-PF2-	Black	.008	3mm	1.0	X			2
PM1-240BC-[Size]-PF2-	Black	.008	6mm	1.6	X			2
PM1-120BC-[Size]-PF2-	Almond	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Blue	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Red	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Green	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Blue	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Copper	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Brushed Silver	.008	3mm	1.0	X	X		2
PM1-120BC-[Size]-PF2-	Brushed Bronze	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF2-	Brushed Gold	.008	3mm	1.0	X			2
PM1-120BC-[Size]-PF1-	Silver Mirror	.008	3mm	1.0	X			1

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

COMPOSITION:

1. Panel surface painted with Polyester finish.
2. Aluminum overlay (top)
3. Solid HDPE core
4. Adhesive
5. Aluminum overlay (bottom)

FINISHED PANEL QUALITY:

1. The backside shall be smooth. Backside imperfections which do not affect functional properties are not cause for rejection.
2. Physical properties shall be set forth in Table 1.
3. 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.
4. 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.
5. 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 composite panels. Flame spread of less than 25, smoke development less than 450 per ASTM E-84. UL Tested.

FABRICATING RECOMMENDATIONS:

Note: Protect your eyes with goggles; cover your nose and mouth with a filter mask when cutting PolyMetal™ panels. When cutting PolyMetal™, position the panel so that the saw blade enters the painted side first, to avoid damaging face of panel.

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:

PolyMetal™ should be stored horizontally (flat) 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 PolyMetal™, 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. **DO NOT REMOVE PROTECTIVE FILM FROM PANEL SURFACE UNTIL AFTER INSTALLATION AND BUILDING IS AT OPERATIONAL TEMPERATURE CONDITIONS.**

PRODUCT LIMITATIONS:

PolyMetal™ sign panels are comprised of a recycled thermoplastic core sandwiched between two sheets of finished aluminum on one or two sides. The recycled thermoplastic core lends itself to resisting moisture. PolyMetal panels also feature the ability to digitally print direct to the panel, thereby allowing for complete design flexibility. Prior to printing PolyMetal™ surface tension test should be performed to measure surface energy. Non-compliance with product limitations may affect future performance and voids warranty.

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.

CLEANING INSTRUCTIONS:

PolyMetal™ 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. 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, non-abrasive cotton cloth, and rinse with clean water.

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.