Modern Matte

HIGH PRESSURE LAMINATES

Three standard grades of Nevamar® high pressure laminate are suitable for most applications:

General Purpose Type G48 is most often used in horizontal applications where high impact resistance and a durable, decorative surface is required.

Postforming Type F39 is designed for manufacturing countertops and other horizontal surfaces where the laminate may be heated and rolled over the substrate edge to eliminate seams.

Type F28 is designed for applications where impact resistance is less critical. Type F28 can also be postformed.

Product Description

High pressure laminate with Modern Matte finish is manufactured in a flat press by combining texturized release polyester carrier film with an acrylic transfer coating. The electron beam (EB) cured coating is transferred onto the receiving melamine resonated decorative paper and combined with phenolic- impregnated kraft layers at pressures exceeding 1000 psi (6.9 MPa) and temperatures approaching 300 ˚F (150 ˚C). In the manufacturing process the carrier film is removed. The result is a highly functional acrylic surface with anti-scratch, anti-fingerprint, velvet touch, chemical resistant properties. Creating a surfacing material that has been the standard for many years but with modern day aesthetics.

Product Description

Standard Nominal Sizes*

Type	Thickness*	Width*	Length	Colors
G48 (in.) (mm)	0.045 ± 0.0005 1.14 ± 0.13	36, 48, 60 914, 1219, 1524	96, 120, 144 2438, 3048, 3658	All solids, patterns & woodgrains
F39 (in.) (mm)	0.036 ± 0.005 0.91 ± 0.13	36, 48, 60 914, 1219, 1524	96, 120, 144 2438, 3048, 3658	All solids, patterns & woodgrains
F28 (in.) (mm)	0.028 ± 0.001 - 0.004 0.71 ± 0.03 - 0.10	36, 48, 60 914, 1219, 1524	96, 120, 144 2438, 3048, 3658	All solids, patterns & woodgrains

*Other widths and thicknesses available upon request.

Finish Code MM

Please refer to HPL Finishes Chart on the website to confirm available products for this finish.

Typical Uses

Nevamar® Modern Matte laminate is designed for either horizontal, vertical, or postforming applications such as countertops, tables, vanities, interior doors, cabinets, contract furniture, and retail store fixtures.

Fabrication Tips

When working with Nevamar® HPL, these techniques will produce a quality application.

1. Proper conditioning of the laminate, substrate, and backing sheet minimizes possible warping, shrinking, or expansion of assembled panels. Ideally, all components should be conditioned at 70 ˚F to 75 ˚F (21 ˚C to 25 ˚C) and 45 to 50 percent relative humidity for 48 hours prior to assembly.
2. Always bond laminate to a suitable substrate such as medium to high density fiberboard, particleboard, or metals. It should not be glued directly to plaster walls, gypsum wallboard, or concrete.
3. Recommended adhesives include solvent or water-based contact cement, white glue (PVA), epoxy, and hot melt glue. Consult your adhesive supplier for specific application requirements.
4. The use of a backing sheet is recommended to minimize warpage. The thickness of the backing sheet should be relatively equal to the thickness of the decorative laminate on the face of the assembly.
5. All saw blades and router bits used for cutting should be carbide tipped. The feed rate should be slow and tool speed should be high.

6. All edges of laminate should be filed smooth with file direction towards substrate to help prevent stress cracks and to minimize chipping.
7. Inside corners of cutouts for electrical outlets, sinks, etc., should have a minimum radius of 1/8" (3 mm) and be filed smooth. This reduces the likelihood of stress cracks.
8. When fasteners are required, it is advisable to first drill an oversized hole through the laminate. This reduces the likelihood of stress cracks.
9. See the Nevamar® Postforming Technical Bulletin for postforming application tips.
10. All laminate is intended for interior use only, and should not be exposed to extreme humidity, continuous sunlight, or temperatures above 275 ˚F (135 ˚C) for extended periods of time.

Technical Information

Physical Properties

TEST		NEMA LD 3-2005 TEST METHOD	TYPICAL PIONITE® VALUES G48	NEMA STD. HGS	TYPICAL PIONITE® VALUES F39	NEMA STD. HGP	TYPICAL PIONITE® VALUES F28	NEMA STD. VGP
Thickness	(in.)		0.045 ± 0.005		0.036 ± 0.005		0.028 ± 0.001 - 0.004	
	(mm)		1.14 ± 0.13		0.91 ± 0.13		0.71 ± 0.03 - 0.10	
Appearance		3.1	Complies		Complies		Complies	
Light Resistance		3.3	Slight Effect	Slight Effect	Slight Effect	Slight Effect	Slight Effect	Slight Effect
Cleanability		3.4	7	20 (max.)	7	20 (max.)	7	20 (max.)
Stain 1 - 10			No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
Stain 11 - 15			No Effect	Moderate Effect	No Effect	Moderate Effect	No Effect	Moderate Effect
Boiling Water Resistance		3.5	No Effect	No Effect	No Effect	Slight Effect	No Effect	Slight Effect
High Temperature Resistance		3.6	No Effect	Slight Effect	No Effect	Slight Effect	No Effect	Slight Effect
Scratch Resistance		3.7	>200		>200		>200	
Ball Impact Resistance	(in.)	3.8	54	50 (min.)	44	30 (min.)	30	20 (min.)
	(mm)		1372	1270 (min.)	1118	762 (min.)	762	508 (min.)
Radiant Heat Resistance	(sec.)	3.10	200	125 (min.)	165	100 (min.)	155	80 (min.)
Dimensional Change		3.11						
Machine Direction	(%)		0.05	0.50 (max.)	0.10	1.1 (max.)	0.15	1.1 (max.)
Cross Direction	(%)		0.45	0.90 (max.)	0.40	1.4 max.)	0.70	1.4 (max.)
Room Temperature Dimensional Stability		3.12						
Machine Direction	(%)		0.10	0.5 (max.)	0.15	1.0 (max.)	0.18	1.0 (max.)
Cross Direction	(%)		0.29	0.8 (max.)	0.42	1.3 (max.)	0.50	1.3 (max.)
Wear Resistance	(cycles)	3.13	600	400 (min.)	600	400 (min.)	600	400 (min.)
Formability	(in.)	3.14	Not Applicable	Not Applicable	5/8	5/8 (min.)	1/2	1/2 (min.)
	(mm)		Not Applicable	Not Applicable	16	16 (min.)	13	13 (min.)
Blister Resistance	(sec.)	3.15	69	Not Applicable	55	55 (min.)	45	40 (min.)

Fire Test Data

High pressure decorative laminate is frequently used in installations governed by local fire codes. Burning characteristics of laminate are greatly influenced by the adhesive and substrate used. Listed below are typical flame spread index and smoke developed values for Nevamar® standard grade laminate. When specifying Class I or A rated laminate, refer to Nevamar® Fire Rated Technical Bulletin.

ASTM E-84/UL723

"Standard Test Method for Surface Burning Characteristics of Building Materials"

Type	Sample Configuration	Flame Spread Index	Smoke Developed Values
G48	Unbonded	45	75
F39		55	65
F28		30	75

CAN/ULC-S102M

Laminated Plastic Surface Burning Characteristics

Type	Sample Configuration	Flame Spread Index	Smoke Developed Values
F28	Unbonded	55	35

Codes and Certifications

1. Available as Fire Rated and classified in accordance with Standard ANSI/UL723 and CAN/ULC S102-M by Underwrite Laboratories, Inc., under File R6581 / K grade types. (Reference Fire Rated Technical Bulletin).
2. Available as Fire Rated and classified in accordance with Standard ANSI/UL723 and CAN/ULC S102-M by Underwriter Laboratories, Inc., under File R21850 Building Units / KD grade types. (Reference Fire Rated Technical Bulletin).
3. U.S. Federal Motor Vehicle Safety Standard #302 "Flammability of Interior Materials." Nevamar® Type G48, F39, and F28 comply.
4. The City of New York, Dept. of Buildings, Materials and Equipment Acceptance Division approval codes are as follows:
   G48 - MEA 205-93-M
   F39 - MEA 206-93-M
   F28 - MEA 208-93-M
4. NSF-International Standard 35, "Laminated Plastics for Surfacing Food Service Equipment." Nevamar® Type G48, F39, and F28 comply.
6. American National Standards Institute/National Electrical Manufacturers Association (ANSI/NEMA), LD3-2005, "High Pressure Decorative Laminate." Nevamar® Type G48, F39, and F28 comply.
7. MIL-P-17171E(SH), "High Pressure Decorative Laminate." Nevamar® G48 complies with Type I.
8. U.S. Federal Specification L-P-508H, "Plastic Sheet, Laminated, Decorative and Nondecorative." Nevamar® Type G48, F39, and F28 comply.
9. International Organization for Standardization, ISO-4586, "Decorative High Pressure Laminates (HPL)." Nevamar® Type G48, F39, and F28 comply.

Stain and Chemical Resistance

Modern Matte surface is in conformance with NEMA LDS- 2005 3.4 Stain Resistance and SEFA 8-PL-2016 Section 8.1 Chemical Resistance.

Care and Mainenance

Nevamar® Modern Matte laminate provides a durable surface that is easy to maintain using ordinary care.

To maintain the laminate's lasting beauty, cleaning with a solution of warm water and liquid dishwashing detergent is all that should be required in most cases. Stains may be removed with most non-abrasive household cleaners such as FORMULA 409®, GLASS PLUS® or WINDEX® with AMMONIA D®. Light scrubbing with a soft bristled brush may be necessary to remove stains from the depth of the structure on some textured surfaces.

If the stain persists, use a paste of baking soda and water and apply with a soft bristled brush. Light scrubbing for 10-20 strokes should remove most stains. Although baking soda is a low abrasive, excessive scrubbing or exerting too much force may damage the decorative surface. Although Modern Matte laminate provides superior chemical resistant properties, prolonged exposure to harsh chemicals can cause permanent damage. Timely cleanup and neutralization of chemical spills will prolong the useful service life of the laminate.

Please reference the HPL Care & Maintenance Guide and/or the Hygiene and Disinfection of Decorative Melamine Laminate Surfaces supporting additional cleaning guidelines.

Limited Warranty

Subject to the limitations set forth below, Panolam Industries International Inc. (Panolam) expressly warrants that our products are reasonably free of defects in material and workmanship, and when properly handled and fabricated will conform, within accepted tolerances, to applicable manufacturing specifications as set forth in our technical brochure. This warranty shall extend to the original buyer for a period of twelve (12) months from the date of shipment of this product by Panolam, and shall not be assignable by the original buyer. This warranty does not cover damage resulting from accident, misuse, alteration, abuse, or lack of reasonable care.

Due to the variety of uses and applications to which this product may be put, and because the manufacturer has no control over the end products fabricated, the warranty set forth above is exclusive and in lieu of all warranties, expressed or implied, in fact or by operation of law or otherwise, or arising by course of dealing or performance, custom or usage in the trade, including, without limitation, the implied warranties of fitness for a particular purpose and merchantability, and Panolam shall have no obligation or liability to any person or entity in connection with or arising from the furnishing, sale, installation, or repair, use or subsequent sale of any product supplied by it.

Our maximum liability arising out of the sale of the products or their use, whether based upon warranty, contract, tort or otherwise, shall not exceed the actual payments received by us in connection therewith. In no event shall we be liable for special, incidental or consequential damages, including, but not limited to, arising hereunder or from the loss of profits, or loss of use damages, sales of the products.

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