



SPECIFICATION INFORMATION SOLID PHENOLIC CORE LAMINATE (CGS) PLASTIC LAMINATE

1. PRODUCT IDENTIFICATION

NEVAMAR® ThickLam™ Solid Phenolic Core Laminate.

2. MANUFACTURER

Nevamar Decorative Surfaces
One Nevamar Way
Hampton, SC 29924
Phone: (803) 943-7200, (800) 638-4380
www.nevamar.com

3. PRODUCT DESCRIPTION

Basic Uses: NEVAMAR brand ThickLam™ is manufactured for application as interior horizontal or vertical surfaces where beauty and durability are important. It provides superior mechanical properties and impact resistance in addition to its excellent resistance to abrasions, stains and heat. NEVAMAR ThickLam is produced in a variety of thicknesses adequate to eliminate the use of a substrate, and is useful where flat, freestanding panels are needed for decorative purposes. Specific applications may include partitions, cubicles, paneling, transportation vehicles, and industrial work surfaces.

Limitations: NEVAMAR ThickLam is not recommended for exterior use. The laminate should not be bonded to plaster board, gypsum board, plaster, concrete blocks or similar materials. ThickLam panels are significantly heavier than normal high pressure laminate, so handling and finishing operations must be planned accordingly. Consult the weight per unit area in the attached physical properties table (Table 1) for typical values.

Composition and Materials: NEVAMAR ThickLam is manufactured by pressing melamine resin impregnated decorative paper over layers of phenolic resin impregnated kraft paper at pressures approximately 1200 lbs. per square inch at temperatures in excess of 275°F (135°C).

Nevamar Armored Protection™ Surface: Nevamar solid phenolic core laminate is produced in textured finish "T" with the exclusive Armored Protection™ Surface and has all the properties of conventional laminate. But it also has superior abrasion and scuff resistance due to a very thin deposit of microscopic particles of aluminum oxide on the surface sheet. Armored Protection™ Surface laminate has significantly better wear value than the NEMA standard for laminates. It also offers superior resistance to scuffing and abrasion and resists gloss change during use. Therefore, Armored Protection™ Surface laminates tend to retain a "brand new" appearance during most of their useful life. All other properties meet the normal NEMA test requirements. Consult your local NEVAMAR representative or distributor for a brochure which fully explains the benefits of this remarkable surface.

Alternatively, the material is also available in Textured "E" finish, without Armored Protection™ Surface.

Sheet Sizes:

Widths - 36" (914 mm), 48" (1219 mm), 60" (1524 mm)
Lengths - 96" (2438 mm), 120" (3048 mm), 144" (3658 mm)
These are nominal dimensions obtainable from oversized sheets.
The product is manufactured to order with a six sheet minimum per sku.

Thickness: ThickLam is typically manufactured in 1/8", 1/4", 3/8", 1/2" 3/4", or 1" thickness with a tolerance of plus 0 minus 10%. Other thickness is available made to order. Contact your NEVAMAR representative.

Finishes: Nevamar ThickLam CGS laminate is manufactured in textured "T" finish with Armored Protection™ Surface or "E" finish without Armored Protection™.

Applicable Standards: NEVAMAR brand ThickLam laminate meets the requirements published in NEMA LD3 current edition for Type CGS high pressure laminates.



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4. TECHNICAL DATA

See Table 1 "Physical and Performance Test Values" and Table 2 "Mechanical Strength Test Properties".

5. INSTALLATION

Conditioning and Storage: As with normal high pressure laminate, ThickLam is intended for interior use only and should not be exposed to extreme temperatures or humidity. Panels should be stored horizontally, and conditioned to 70-75°F and 45-50% relative humidity to maintain flatness. Care should be taken at installation to allow for expansion and contraction of ThickLam with changing environmental conditions.

Fabrication: ThickLam can be sawed, routed, drilled, and tapped with conventional wood-working or metalworking equipment. Saw blades and router bits should be carbide tipped and kept sharp to produce chip free edges. Mitered edges should be avoided. Although unlikely, stress cracks can be avoided by ensuring that cutouts and holes are oversized, and that inside corners are rounded and filed smooth. To reduce the likelihood of stress cracking with nails and screws, an oversized hole should be predrilled with a minimum distance to the edge of 1-1/2 times the hole diameter. Self-tapping screws can be used in predrilled holes. Do not screw into or use splines in the edges of ThickLam. Panels can be joined using metal brackets or clips, although it is sometimes necessary to use shims to level out the joint.

Adhesives: Epoxy adhesive is recommended for bonding ThickLam, and when necessary, surfaces can be prepared with light sanding with 100 grit sandpaper. Contact adhesive should only be used on sanded surfaces.

Edge Finishing: ThickLam edges can be finished by sanding with coarse sandpaper (80 grit) followed by a fine sandpaper (180 – 220 grit). This will remove saw striations and provide a smooth appearance to the edges. A final edge treatment with a furniture or laminate polish, oil, or wax will further enhance the edge aesthetics.

6. AVAILABILITY AND COST

Contact the nearest sales office or customer service center for specific price according to quantity required and sheet size.

7. MAINTENANCE

Surfaces of NEVAMAR laminate may be cleaned with a damp cloth and ordinary soap or household ammoniated liquid detergent. Abrasive cleaners or cleaners containing five percent or more of chlorine bleach solution should not be used. Stubborn stains may require use of organic solvents such as alcohol, acetone, (MEK)- lacquer thinner, or paint solvent. (NOTE: Although these flammable solvents will not harm NEVAMAR, they will attack the contact adhesive at the glue line around the edges. Use extreme care with flammable solvents.) Complete care instructions are available at www.nevamar.com or upon request.

8. LIMITATION OF WARRANTY AND LIABILITY

(a) We warrant solely to the original Buyer that the Products will be free from defects in materials and workmanship, when given normal, proper and intended usage, for a period of one year from the date of sale to the Buyer.

(b) At our expense, we agree to repair or replace at our option all defective Products not performing substantially in accordance with applicable Product specifications, provided that Buyer has given us written notice of such warranty claim within the one year warranty period. If we are unable, after reasonable efforts, to repair or replace such defective Product, Buyer's sole remedy shall be the refund of an amount not to exceed the actual payments received by us for such Product. All replaced items shall become our property.

(c) Buyer is responsible for inspection of the product upon receipt and prior to any cutting, gluing or attaching of the product to any other material ("Fabrication"). Any claim by Buyer for breach of warranty shall be deemed waived to the extent it could have been determined by such inspection and any claim by Buyer for breach of warranty shall also be deemed waived if, after the Buyer determines the existence of a possible claim, fabrication is not delayed until we have been notified and have had an opportunity to resolve it in accordance with this warranty.



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(d) We shall have no obligation to make repairs, replacements or corrections which result, in whole or in part, from (i) normal wear and tear, (ii) fault or negligence of Buyer, (iii) improper or unauthorized use of the Products, (iv) use of the Products in a manner for which they were not designed, (v) modifications of the Products by anyone other than us, (vi) any act of nature, act of God, fire, casualty, flood or war, (vii) any other causes external to the Products, or (viii) use of the Products in combination with equipment or materials not supplied by us.

(e) If notified within 10 days in writing of any action (and all prior related claims) brought against Buyer based on a claim that a Product infringes any valid United States patent, copyright or trade secret, we shall defend such action at our expenses and pay all costs and damages finally awarded in such action or settlement which are attributable to such claim. We shall have sole control of the defense of any such action and all negotiations for its settlement or compromise. Buyer shall cooperate fully with us in the defense, settlement or compromise of any such action. In the event that a final injunction is obtained against Buyer's use of a Product by reason of infringement of a valid United States patent, copyright or trade secret, or if in our opinion any Product is likely to become the subject of a successful claim of such infringement, we may, at our option and expense, (i) procure for Buyer the rights to continue using the Product, (ii) replace or modify the Product so that it becomes non-infringing (so long as its functionality is essentially unchanged), or (iii) accept the return of the Product and refund the Buyer the purchase price therefore. We may withhold further shipments of any such Products.

(f) We shall not have any liability to Buyer to the extent that any infringement or claim thereof is based upon (i) the use of a Product in combination with equipment or materials not supplied by us where the Product would not itself be infringing, (ii) compliance with Buyer's designs, specifications or instructions, (iii) use of the Product in an application or environment for which it was not designed, (iv) modifications of the Product by anyone other than us, or (v) any claims of infringement of any patent, copyright or trade secret in which Buyer or any affiliate or customer of Buyer has an interest or license.

(g) Buyer shall not bring any suit or action against us for any reason whatsoever more than one year after the related cause of action has accrued.

EXCEPT AS STATED ABOVE, WE DISCLAIM ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, WITH RESPECT TO THE PRODUCT, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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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, LOSS OF PROFITS, OR LOSS OF USE DAMAGES, ARISING HEREUNDER OR FROM THE SALE OF THE PRODUCTS.

Consumers who purchase our Products for personal or household use may have other rights, which will vary from state to state or, in Canada, from province to province. Federal law and some states law do not permit the disclaimer or modification of implied warranties for consumers, but may permit limitation of the duration of the implied warranties for consumers. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. Therefore, the above warranty limitations may not apply to you.



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9. TECHNICAL SERVICES

Nevamar maintains trained sales personnel to servicing all sections of the country. Consult local telephone yellow page directory under "Plastic High Pressure Laminates" or contact Nevamar Decorative Surfaces, One Nevamar Place, Hampton, South Carolina 29924

Phone: (803) 943-7200 or (800) 845-4790

Website: www.nevamar.com

TABLE-I PHYSICAL AND PERFORMANCE TEST VALUES			
TEST	NEMA REQUIREMENTS	TYPICAL NEVAMAR VALUES	
		0.500" (12mm)	0.75" (18mm)
Wear Resistance: Wear Value (cycles)	400 min.	650	725
Ball Impact Resistance: (Inches Drop)	75	90	90
Dimensional Change: Length (Machine direction) Width (Cross direction)	0.3% max. 0.7% max.	0.1% 0.1%	0.1% 0.1%
Resistance to Boiling Water	No Effect	No Effect	No Effect
Resistance to High Temperature	Slight Effect	No Effect	No Effect
Radiant Heat Resistance	200 sec. min.	430 Seconds	450 Seconds
Stain Resistance	Unaffected by reagents I-10, moderate II-15	No Effect No Effect	No Effect No Effect
Light Resistance	Slight Effect	No Effect	No Effect
Cleanability	20	10	10
Flatness	± 0.500" (± 12.0mm)	0.125" (3.18mm)	0.0625" (1.59mm)
Weight Per Unit Area Lbs/ft ² Kg/m ²		3.5 Lbs/ft ² 17.15 Kg/m ²	5 Lbs/ft ² 24.5 Kg/m ²

TABLE-2 MECHANICAL STRENGTH TEST PROPERTIES		
TEST	NEMA REQUIREMENTS	TYPICAL NEVAMAR VALUES
Flexural Strength MD (psi) CD (psi)	18,000 12,000	23,000 20,000
Flexural Modulus MD (psi) CD (psi)	1.6X10 ⁶ 1.4x10 ⁶	2.0 x 10 ⁶ 1.6 x 10 ⁶
Tensile strength MD (psi) CD (psi) Z DIRECTION (psi)	18,000 12,000	20,000 17,000 1,000