

PRODUCT DATA SHEET

APRIL 2014

PRODUCT DESCRIPTION

Metal-Art™ embossed metal architectural surfaces consist of metallic high-pressure laminates featuring large-scale dimensional embossing.

RECOMMENDED APPLICATIONS

Metal-Art is for low-wear interior use only and is not recommended for direct application to plywood, steel, aluminum, fiber reinforced plastic, plaster, gypsum board or concrete. Do not use in areas exposed to temperatures in excess of 275°F (135°C) or high humidity.

PRODUCT COMPOSITION

Metal-Art™ is manufactured by laminating phenolic resin-impregnated kraft sheets with an aluminum foil and an epoxy varnish protective layer.

CONDITIONING

Metal-Art™ may be sensitive to changes in temperature and humidity conditions. If adhered with excess moisture present, there is a risk of cracking and open seams due to shrinkage, particularly in winter conditions or when relative humidity is low. Prior to adhesive application to a suitable substrate, Metal-Art panels should be carefully conditioned. (The recommended method of conditioning is to store panels and substrates together in the same room for a period of at least 72 hours with adequate air movement, under stable temperature and humidity conditions as close as possible to actual conditions at the installation site.) **Recommended conditioning for all panels is at approximately 75° F (24° C), with 45-55% relative humidity.**

STORAGE AND HANDLING

Metal-Art™ sheets should be stored horizontally, back-to-back and face-to-face, with the top sheet turned face down and a caul board placed on top to preserve the material. Storing the panels in an atmospherically stabilized room is recommended to avoid extreme fluctuations of moisture.

Lamin-Art® recommends that full-sized sheets be carried by two people with the decorative facing upward whenever possible.

INSTALLATION

All surfaces to be laminated should be inspected prior to installation to ensure that they are clean and free of surface defects. The protective coating (peel coat) should be removed prior to inspection. All defects should be corrected before application. Material, equipment, and workmanship should conform to industry-standard practices, conditions, procedures, and recommendations specified by National Electrical Manufacturers Association (NEMA) LD 3-2005 Annex A, Architectural Woodworking Institute (AWI) Quality Standards, and the American National Standards Institute (ANSI) 161.2-1979 standards.

SUBSTRATES

Metal-Art™ should be adhesively bonded to a substrate, or to a sheet substrate forming a new composite component which will be used in other assemblies. Suitable substrates may include, but are not limited to; particleboard (minimum density 45 pounds/cubic foot), medium-density fiberboard (MDF) or high density fiberboard (HDF). Materials with insufficient dimensional stability or internal bond strength such as plywood, steel, aluminum, fiber reinforced plastic, plaster, gypsum board, and similar materials are not recommended for use as substrates. Concrete is not a recommended substrate.

ADHESIVES

Surfaces to be adhered must be sound, thoroughly dry, clean, free of dust, wood chips, oil and other types of surface contamination. When a laminating press is not available, such as an on-site installation, contact adhesives may be used, however this method should be restricted to small areas only. Ensure full adhesive coverage of both surfaces to be bonded and apply a pressure of at least 50-75 pounds per square inch until full bonding is achieved. Spot bonding should never be used. In all cases with all types of adhesives comply with the adhesive manufacturer's usage recommendations.

BACKING SHEETS

To avoid warping of a panel assembly faced with Metal-Art™, stresses resulting from thermal and hygroscopic forces on both sides of the assembly must be balanced. The best results are obtained when a backing sheet, with characteristics comparable to the face sheet, is laminated to it. Alternatively, balance may be achieved using an ordinary high pressure laminate of the same thickness on the back side of the assembly. Narrow panels for wall applications, held rigidly in place by a securing system can have just a face side if the back side is protected from excess humidity and covered with a suitable sealant such as paint, lacquer, or a vapor-retarding varnish.

MAINTENANCE

Metal-Art™ should be cleaned with a damp cloth and gentle, rubbing motion. The cloth should be soft and clean and microfiber is preferred. Paper towels are not recommended since they may be abrasive. If necessary, ordinary soap or household cleaner may be used for more difficult stains. Avoid abrasive cleaning products, solvents, polish or scrapers. For post fabrication stain removal, it is recommended that the cleanser be tested first in an inconspicuous area.

WARRANTY

Lamin-Art®, Inc. expressly warrants that its products are free of defects in material and workmanship, are of merchantable quality, and meet or exceed performance standards for high-pressure decorative laminates as established by NEMA, LD 3-2005. Please note that some of our products contain special pearlized inks and do not meet NEMA standards for abrasion/scratch resistance in all finishes. Inasmuch as Lamin-Art has no control over the end products fabricated with the materials sold, no warranty or guarantee is expressed or implied, other than those set forth above, and is limited to the replacement cost of the material alone.

Questions? Call Customer Service at 800.323.7624.

SPECIFICATIONS

SHEET SIZE	SHEET THICKNESS
4' X 10' (1270MM X 3050MM)	0.038" ± 0.0015" (0.97mm ± 0.038mm)
GRADES	
VERTICAL GRADE ONLY; NOT AVAILABLE IN STANDARD OR POSTFORMING GRADES	
EDGE BANDING	
NOT AVAILABLE	
BENDING RADIUS (COLD BENDING)	
4.72" (120MM)	

PERFORMANCE

Metal-Art™ decorative surfaces are imported from Europe, and are therefore tested according to European performance standards. This product was shown to meet or exceed European performance standards (EN 438-2) for high-pressure decorative laminates. Metal-Art has also been tested independently in accordance with the National Electronic Manufacturers Association (NEMA) standards LD 3- 2005. The NEMA LD 3-2005 test procedures and standards were designed for high pressure decorative laminates, and their use with other products such as Metal-Art may produce misleading or irrelevant results. Metal-Art NEMA results are indicated below.

NEMA TEST PUB LD3-2005, SECTION 2	RESULTS FOR METAL-ART™	NEMA STANDARDS FOR GENERAL PURPOSE HPL
THICKNESS VERTICAL GRADE	0.038" ± 0.0015" (0.97mm ± 0.038mm)	0.028" +/- 0.004" (0.7MM +/- 0.10 MM)
APPEARANCE	NO ABC DEFECTS	NO ABC DEFECTS
LIGHT RESISTANCE	NO EFFECT	SLIGHT EFFECT
CLEANABILITY (SUM OF SCORES)	8	20 MAX.
LINEAR SCRATCH RESISTENCE	<20G	---
DIAMOND SCRATCH RESISTENCE	>2N	---
STAIN RESISTANCE REAGENTS 1-10 REAGENTS 11-15	NO EFFECT NO EFFECT	NO EFFECT SLIGHT EFFECT
BALL IMPACT RESISTANCE VERTICAL GRADE	90.5"(2300MM)	19.7"(500MM)
DIMENSIONAL STABILITY MACHINE DIRECTION CROSS DIRECTION	0.23% 0.38%	0.70% MAX. 1.20% MAX.
WEAR RESISTANCE (CYCLES)	>1,000 CYCLES	400 CYCLES MIN.