

# DECOMETAL® BY FORMICA GROUP / BASIC METAL TECHNICAL DATA



## RECOMMENDED APPLICATION

BasicMetal™ by Formica® is real Aluminum foil laminated to a phenolic core to exhibit the look of real metal with the practicality of high pressure laminate (HPL). BasicMetal™ laminate is suitable for interior light-duty horizontal or vertical applications such as furniture, exhibits, accents, etc., where the look and design of metal are required. BasicMetal™ is not designed for postforming applications.

## PRODUCT DESCRIPTION

BasicMetal™ sheet is impregnated with a polyester coated aluminum foil surface (brushed and matte) combined with phenolic-treated kraft paper that is fused together at high pressure and temperature. The sheet back is sanded to maintain a uniform thickness and facilitate bonding.

## FABRICATION AND ASSEMBLY

### SPECIAL CUTTING AND TRIMMING GUIDELINES:

#### CUTTING

- Cut BasicMetal™ sheet to yield a minimum overhang (<1/8" (3.18mm)).
- Use clean, sharp carbide saw blades.
- Eliminate pulling and bending by cutting BasicMetal with "zero clearance" at blade kerf or spot-gluing metal to scrap carrier board.

#### TRIMMING

- Use a small diameter cutter (3/8" (9.53mm)) and a variable speed router set at minimum setting, or use an electronic speed control accessory to reduce router RPM as much as possible.
- Use a flush bit (rather than a bevel bit) that can be adjusted to yield up to 10 fresh cutting edges. Protect the self-edge face with masking tape at the bearing line.
- Feed the router as fast as possible. Rough cut at one height adjustment and re-trim at a fresh cutting edge. Retract cutter from the work piece as soon as cut is complete. Dwelling in one



spot during start or finish will greatly diminish cutter life. Plan your cutting strategy to reduce static start and stops.

- Having excessive overhang will allow for excessive heat buildup, which could cause delamination of the aluminum surface from the phenolic core.
- Finish the edges with a fine file, always cutting on the downward stroke.
- BasicMetal™ is made from real aluminum, which is a natural occurring metal and hence a conductor.

## LIMITATIONS

BasicMetal™ is intended for application to dry interior light-duty horizontal or vertical surfaces. It is not recommended for application directly to plaster, drywall (gypsum board), fiberglass, concrete, softwood fir and/or pine plywood. BasicMetal™ sheets should not be used in areas exposed to water, moisture, high humidity, temperatures exceeding 140°F (60°C) for prolonged periods of time, or for exterior applications. BasicMetal™ is manufactured using real aluminum. This surface is softer and will scratch more easily than the surface of Formica® Brand Laminate. BasicMetal is not recommended for heavy duty horizontal applications such as countertops or for use in high heat or high moisture areas such as backsplashes, behind cooktops or range hoods.

BasicMetal IS NOT a postformable grade laminate.

The surface of BasicMetal is covered with a protective peelcoat, which should not be removed until all fabrication work has been completed. Directional arrows are noted on the peelcoat indicating the proper direction for application. Before routing, inspect the router base and bit guide bearings and perform work on a piece of scrap material to assure that you will not scratch the surface.

Do not apply adhesive tapes directly to the surface of BasicMetal, as it can damage the finish. Masking tape may be applied over the peelcoat for additional surface protection for the router base and router bit bearing to guide on.

## COLOR LIMITATIONS

Due to deviations that are inherent to natural aluminum products, BasicMetal may display a range of color shades, which do not indicate a product defect. Check that all sheets are of a consistent shading before fabrication. Lift a corner of the peelcoat to check shading; reposition peelcoat after color check to protect the surface during fabrication.

BasicMetal is directional and may show a color shift when viewed at different angles. It is absolutely necessary that the running direction is the same, and the general appearance checked, before assembly. Directional arrows are printed on the peelcoat of laminate, indicating alignment direction. Do not remove the peelcoat prior to fabrication.

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Exposure of BasicMetal sheets to direct sunlight may produce color change in the tinted surface coating. Any slight change in color over time does not indicate a product defect. Do not expose solid metal sheets to temperatures that exceed 200°F (93°C) or to direct sunlight.

## STORAGE

BasicMetal should be stored horizontally, with a caul board or other protective sheet placed on top to protect the material from possible damage and reduce possibility of warpage. The material should be protected from moisture, and should never be stored in contact with the floor or an outside wall. Storage temperature should not exceed 85°F (30°C), or go below 50°F (10°C) for prolonged periods of time. Optimum conditions for storage are approximately 70°F (21°C) and 45% to 65% relative humidity (RH). Do not damage the protective peelcoat. The material should be protected from ultraviolet light and excessive heat to ensure easy removal of peelcoat and prevent color shift due to exposure of light.

## PRECONDITIONING

BasicMetal™ and substrates gain moisture and expand under high relative humidity conditions, and lose moisture and shrink under dry relative humidity conditions. Allow the sheet(s) and substrate(s) to acclimate for at least 48 hours at the same ambient conditions prior to fabrication. Optimum conditions for storage are approximately 70°F (21°C) and 45% to 65% relative humidity (RH). Provisions should be made for the circulation of air around components.

## SUBSTRATES

The recommended cores/substrates for BasicMetal™ are 45# density, industrial particleboard, (CS 236-66: Type 1, Grade B, Class 2), or Medium Density Fiberboard (MDF). Softwood fir and pine plywood have rough surfaces and high shrinkage characteristics and are unusable as substrates. Plywood is also unusable, due to the potential for stress cracking, shrink-back, and surface telegraphing problems. The substrate should be sanded smooth and should be clean and free of oil or grease, and uniform in thickness. Do not use drywall (gypsum), plaster, concrete, solid lumber, bending plywood or underlayment.

## ADHESIVES

Conventional contact, PVAc and rigid-set adhesives (resorcinol) can be used to bond BasicMetal. Do not use urea adhesives. Do not hot press. Avoid contact adhesive contamination of the metal surface. Avoid contamination of the metal surface with contact adhesive.

Do not allow contact adhesive solvent, lacquer thinner or other strong solvents to come into contact with the coated surface of the BasicMetal as it will stain the surface. Keep peelcoat on surface through fabrication to prevent such contamination.

## ASSEMBLY

Material, equipment and workmanship should conform to the industry standard practices, conditions, procedures and recommendations as specified by ANSI/NEMA LD3- 2005, Architectural Woodwork Quality Standards, DLPA (Decorative Laminate Products Association) and ANSI 161.2-1995 standards. Critical applications requiring a well-balanced panel assembly, such as cabinet doors, should use the same material on both sides to minimize warpage. Less critical assemblies may require only a cabinet liner or phenolic backer.

Always align material in the same running direction. Directional arrows are printed on the peelcoat to indicate alignment. Do not remove the peelcoat prior to fabrication.

BasicMetal sheets can be sawed, drilled, routed and fabricated similarly to standard high pressure laminate. Carbide-tipped cutting tools are recommended. Always cut with the decorative surface face up. BasicMetal™ is not a postforming grade laminate.

All inside corners of cutouts must be radiused so they are as large as possible, 1/8" (3.18mm) minimum, to avoid stress cracking. The edges and corners should be routed, sanded or filed smooth and free of chips or nicks.

Cut or milled edges should be finished with a fine file or abrasive paper to remove any burrs.

## FIRE TEST DATA - ASTM E-84

Test reports are available upon request.

## SIZES

Brushed Aluminum 48" x 120" (1020 x 3050 mm) and 48" x 96" (1020 x 2440 mm). All others 48" x 96" (1020 x 2440 mm).

## NOMINAL THICKNESS

0.027" ± 0.005" (0.685 mm ± 0.12mm), -Grade 36



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## PATTERNS, GRADE AND FINISH

### BASICMETAL IS AVAILABLE IN:

- Seven Patterns
- One grade: 36 (see Nominal Thickness)
- Two Finishes: Brushed (91) and Matte (92).

BasicMetal has a polyester coated aluminum surface.

BasicMetal samples are available from Formica Corporation specification representatives or directly from Formica Corporation.

U.S. Customers - Call 1-800-FORMICA™ (option 1).

Canada Customers - Call 1-800-363-1405 for ZIP-CHIP™ service.

## HOW TO SPECIFY

Surface shall be BasicMetal by Formica, Cincinnati, Ohio.

COLOR NUMBER \_\_\_\_\_  
COLOR NAME \_\_\_\_\_  
GRADE \_\_\_\_\_  
FINISH \_\_\_\_\_  
SIZE \_\_\_\_\_

## USE AND CARE

BasicMetal may be cleaned with a damp cloth and mild detergent or citrus cleaner. To remove contact adhesive overspray, use hexane, heptane or Formica® Brand #203 Adhesive Remover. If in doubt about the suitability of a particular cleaner or detergent, check with its manufacturer. Use of abrasive cleaners, powders, scouring pads, steel wool, sandpaper, etc., will damage the finish. Acid or alkaline-based cleaners, compounds, solvents, etc. will mar, etch, corrode, and permanently discolor BasicMetal sheets.

Never use these materials on BasicMetal, or allow bottles, rags, etc., contaminated with the solution to contact the surface. Accidental spills or splatters from these harsh materials should be wiped off immediately, and the area cleaned thoroughly with a damp cloth.

### EXAMPLES OF THESE MATERIALS:

- drain cleaners - coffeepot cleaners
- ceramic cooktop cleaners - chlorine bleach
- some countertop cleaners - rust removers
- metal cleaners - tub and tile cleaners
- oven cleaners - toilet bowl cleaners

### LIMITED WARRANTY

Formica Corporation expressly warrants that, for a period of one (1) year from the date of first sale, these products will be reasonably free of defects in materials and workmanship, and that when properly handled and fabricated, will conform, within accepted tolerance, to applicable manufacturing specifications. Colors are subject to dye lot variations. This limited warranty only applies to Formica® Brand Laminate that is stored, handled, fabricated and installed in the manner recommended by Formica Corporation. Due to the variety of uses and applications to which Formica Brand Laminate may be put, **FORMICA CORPORATION CAN MAKE NO WARRANTY THAT THIS PRODUCT IS SUITABLE FOR ANY PARTICULAR PURPOSE AND CAN MAKE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE SET FORTH ABOVE.**

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THE PRODUCTS PURCHASED, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER SUBSTANCES.

## LIMITATION OF LIABILITY

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**NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.**



## MANUFACTURER

Formica Corporation (or an unaffiliated manufacturer in accordance with the specifications of Formica Corporation)  
10155 Reading Road Cincinnati, OH 45241

## TECHNICAL SERVICES

Technical assistance may be obtained through your local Formica® Brand Products Distributor or from Formica Corporation trained representatives in sales offices throughout the country. To assist these representatives, Formica Corporation maintains a sales and technical services staff in Cincinnati, Ohio. For technical assistance, contact your distributor or sales representative; write the company directly at Formica Corporation Technical Services Department, 10155 Reading Road, Cincinnati, OH, 45241; call 1-513-786-3578 or 1-800-FORMICA™ (option 2); or fax 1-513-786-3195. In Canada, call 1-800-363-9280. In Mexico, call 1-525-530-3135.

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For warranty information, please visit [www.formica.com](http://www.formica.com) or call 1-800-FORMICA™.

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