## med ex®

## Finishing Guidelines



### SDF

sustainable design fiberboard

Highly Moisture Resistant Medex MDF panels have a fine surface that takes paint, vinyl and other high-tech decorative surfaces exceptionally well and when properly sealed, provide you with a versatile substrate for your signage needs.

For best results, the characteristics of Medex must be given serious consideration and properly incorporated into the design of the end product. To ensure the best results, follow these step-by-step finishing instructions.

These guidelines are intended for utilizing Medex in external applications.



FSC® Certified The mark of responsible forestry (Available upon request)



**ECC Certified** Composite Panel Association Eco-Certified Composite



LEED® Credits Supported Materials & Resources: 92% Pre-Consumer 4, 5, 7 Indoor Environmental Quality: 4.4



NO ADDED FORMALDEHYDE

SCS Validation

SCS-NAF-01329

No-Added

Formaldehyde

SCS Certified SCS-MC-01584 Recycled Wood Content

Finishing Steps

Routing

Sanding

Sealing

**Priming** 

Top Coating

Mounting

**Fasteners** 



Delivering innovation, quality & value with pride.

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### Finishing Guidelines

#### Routing

1

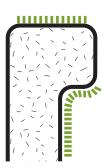




Radius or rout all 90 degree edges to a minimum 3/16" radius in order to improve paint film buildup over this area.

#### Sanding

2

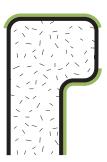




Sand all edges and/or machined areas to reduce the amount of raised wood fibers which prevent proper sealing on the unsanded surfaces.

#### Seal Coat

13



This seal coat is for all edges and those areas where the lower density core area is exposed. Sand lightly after drying.

#### PRODUCTS TO USE

- a) 2-part epoxy
- b) Solvent based polyurethanes NOTE: Lumber (e.g. deck) sealers are not recommended.

#### Prime Coat (all surfaces)





Use a solvent-based prime coat to a minimum 1.5 mils dry film build. Latex prime or top coats NOT RECOMMENDED.

NOTE: A prime coat is not a substitute for sealing or topcoating.

#### Top Coat (all surfaces)

-



#### IMPORTANT:

Automotive type paints are not to be used unless the sign has already been sealed as described.





Dry film build of top coat - minimum 2.5 mils. Reminder: All paints will draw away from a sharp edge or corner, regardless of what is being painted: metal, plastic, lumber, plywood and Medex. Because the paint is very thin on this area, any expansion and contraction resulting from ambient changes will cause the paint to crack.

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## Attachments & Mounting

#### Mounting

With the potential for lineal expansion over the life of the sign, mounting holes should be made oversized. Fill excess area with silicone and cap with a washer large enough to cover the area. Do not tighten so that washer is pulled through the paint.

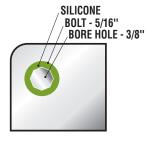
Do not use wood screws or nails to attach edge capping to Medex.

#### Screws to use:

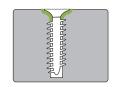
**DECK SCREW** 

Drill pilot hole at 85-90% of the root diameter of the selected screw. Apply bead of silicone in counter sink area to seal hole.

NOTE: Drill hole 1/16" deeper than length of screw. Lag bolts are not recommended.







#### Frame-Mounted Signs

Frame-mounted signs must be vented on sides and bottom for moisture drainage and evaporation.



Enclosed-type signs must be vented (2 sides) to prevent humidity/moisture buildup on the inside.

NOTE: Medex must be sealed on all sides in this type of application.



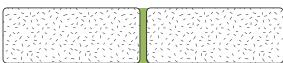




#### **Edge Protection**

When attaching edge protection to Medex do not penetrate the edge. Use silicone to attach any edge cap to the perimeter of the sign.





When butt-fitting Medex, always coat adjoining edges with silicone after finishing steps have been completed.

Moisture will form a drip-line on the bottom of vertical panels. Be sure to seal bottom edges to prevent moisture absorption.

Do not flush mount to any wall. There should be a minimum of 1/4" spacing using furring strips or galvanized washers.





#### Post Mounting

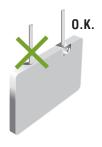
Medex must be supported at both ends with at least 24" between the sign bottom and the ground. Do not mount where there will be direct contact with water from ground or irrigation systems.



For hanging signs, use a clevis and pin attachment. Do not use mounting bolts into the edge.







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## LIMITATIONS Medex is not suitable for structural applications.

- No average value of a single panel in a multi-panel sampling shall be more than ten percent out of compliance with the requirement in ANSI A208.2.
- Awarded CARB NAF Exemption due to formaldehyde-free adhesive system.
   The listed emissions are due to formaldehyde naturally present in all wood fiber.
- Stock panel size is 49" x 97" in thicknesses of 3/8" 1+1/4". Custom sizes (up to 5' x 18' and cut-to-size are also available.
   Non-stock items may be subject to mill run and/or minimum order quantities.
   Please ask your Roseburg sales representative.
- The word "exterior" as used in this context indicates compliance with ASTM D1037 six-cycle accelerated aging test.
- Medex will readily accept most exterior coatings formulated for application over wood and wood products. A minimum prime coat film thickness of 1.5 mils (dry) is recommended for exterior applications. Topcoats used over properly primed Medex should be applied to achieve a dry film build of 2.5 to 3.0 mils, creating a total dry film build through the sign face of 4.0 to 4.5 mils.

NOTE: This information applies when Medex is used in external applications only.

# medex®

Technical Date	Imperial	Metric
Density	48 lb/ft <sup>3</sup>	769 kg/m³
Internal Bond	200 lb/in <sup>2</sup>	1.38 N/mm <sup>2</sup>
Modulus of Rupture	5,500 lb/in <sup>2</sup>	37.89 N/mm <sup>2</sup>
Modulus of Elasticity	600,000 lb/in <sup>2</sup>	4,134 N/mm <sup>2</sup>
Modulus of Hardness	1,200 lbs, Janka ball	5,115 N
Screw Holding, Face	325 lbs	1,446 N
Screw Holding, Edge	280 lbs	1,245 N
Thickness Tolerance	+/- 0.005 inch	+/- 0.127 mm
Thickness Swell	3%	
Linear Expansion	0.25%	
Water Absorption	6%	
Flame Spread Rating	Class 3 (C)	
Moisture Content	4 - 6%	
Formaldehyde Emissions	as low as 0.01 ppm	

Average physical properties for 3/4" panel when tested in accordance with ASTM D1037. Specific design applications and technical data are available upon request.

Board Thickness	Maximum Span
3/8"	12"
1/2"	16"
5/8"	24"
3/4" and thicker	36"

NOTE: Wood, wood products and many paints are susceptible to degradation from fungal growth and ultraviolet radiation. Many commercially available primers contain an antifungal ingredient. If your prime coat does not contain such an ingredient, it is recommended that one be included. Translucent and clear primers generally offer unsatisfactory protection against ultraviolet radiation.



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TECHNICAL SUPPORT
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