



NUVACOR CORPORATION

FABRICATION AND

INSTALLATION

MANUAL

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The statements, technical information, and recommendations contained herein are believed to be accurate as of 12/05. Properties reported herein are typical of average production lots. Nuvacor Corporation makes no representations that the fabrication of sheets in any particular shipment will conform exactly to the values shown. Nuvacor Corporation expressly disclaims any and all liability as to any results obtained or arising from any use of Nuvacor Sheets or reliance on this information. No warranty is made of the fitness for use of Nuvacor Sheets and the Fabrication thereof, and nothing herein waives any of the Seller's conditions of sale.

Note: Conversion of U.S. customary and metric values may have been rounded off and therefore may not be exact.

INTRODUCTION / PRODUCT DESCRIPTION

This manual provides guidance on planning, fabrication and maintenance of NUVACOR decorative surfacing material. Written primarily to assist fabricators and installers. It is also intended to help architects, interior designers and builders take full advantage of this innovative surfacing material.

NUVACOR decorative surfacing is a back side treated, high molecular weight methacrylate or polycarbonate sheet that combines the reflective gloss and other visual attributes typical of hand lacquered surfaces with high performance characteristics and straightforward fabrication techniques.

ALL Nuvacor sheets come with our Proprietary High Performance NU100 Self-Adhesive Peel & Stick back. This adhesive back was developed to address environmental issues related to VOC's used and emitted with the use of all Solvent based contact cements during fabrication. In addition, the adhesive back will save both time and labor costs during application and clean-up.

NUVACOR is available in vertical, horizontal, vertical forming and fire rated grades. It is recommended for applications such as case goods, fixtures, kitchen cabinets, vanites, desks, conference tables, occassional furniture, displays, wall accents, wall paneling, shower stall walls, bathroom fixtures and furniture, signage or wherever a highly polished appearance and clarity of reflection is a desirable part of the design concept.

NUVACOR surfacing is fabricated with procedures similiar to those for high pressure laminates. However, there are several differences in technique:

- . Once laminated, sheets can not be delaminated using solvent, since excessive solvent will affect the barrier coating on the back of the sheet.
- . Saw chips are somewhat larger and will easily cling to the surface due to static. They must be completely removed to avoid telegraphing once sheet is laminated.
- . A couple of light even applications of sprayed natural (colorless) contact cement adhesive are recommended.

While one can also Brush and Roll on contact cement caution should be used not to use excessive amounts of contact cement that could be left to sit on the backside surface of the Nuvacor Laminate incurring solvent damage to the decorated backside.

- . Edges must be polished to bring out NUVACOR's full depth in appearance.

NUVACOR should be bonded to substrates such as plywood, medium density fiber board, particle board, or metal, and can be applied directly to plastered walls, gympsum wallboard or concrete walls if those surfaces are clean, flat and dust free.

For applications such as doors and depending on size/appertures a sealer, liner or gelera should be used, the use of a moisture barrier sheet (backing sheet) should be considered to assure balanced construction.

NUVACOR sheets are supplied with masking on front to protect the sheet during shipping and fabrication and with a Full Adhesive Back that is protected by a Heavy Wax Paper Peel Coat that must be removed during lamination to a sub-surface panel or wall. Since sheets are oversized (51" x 100"), it is recommended that the first outside 1" of the sheet not be used as finished product as there is a chance of minimal edge defect. In anycase if you need the ful 51" width caution should be used to see that no defect exists on that part of the excess edge you want to use.

We conform to the Acrylic Manufacturing Standards as defined by ASTM D4802 with regard to Chips & Dirt in Sheets

5.6.2 Chips and Dirt in Sheet:

5.6.2.1 Chips in Sheet of Thickness Equal to or Less Than 51 mm (2.008 in.)—The maximum permissible chip size shall be 3.2 mm (0.125 in.). Chips that are approximately the maximum permissible size shall not have a frequency greater than 1 chip per 0.4 m² (4.3 ft²) of sheet area. Chips less than 0.8 mm (0.031 in.) are to be disregarded unless they form a concentrated pattern that may affect serviceability. Chips from 0.8 mm (0.031 in.) to the maximum permissible size shall not have a frequency greater than 1 per 0.4 m² (4.3 ft²). Chips out of tolerance in size may be knifed off and considered acceptable if the remaining blemish can be removed by polishing, except for Finish 3 sheet which cannot be easily polished. For Finish 3 sheet, the maximum permissible chip size shall be 4.75 mm (0.187 in.); all other requirements above apply except as noted.

5.6.2.2 Chips in Sheet of Thicknesses Greater Than 51 mm (2.008 in.)—Chips may be accepted providing they do not extend more than 0.4 mm (0.016 in.) above the surface.

5.6.2.3 Dirt and Contaminants—The maximum permissible dirt and contamination dimension shall be 3.2 mm (0.125 in.). Dirt and contaminants less than 0.8 mm (0.031 in.) shall be disregarded unless they form a concentrated pattern that may affect the serviceability of the sheet. The maximum permissible frequency for dimensions ranging from 0.8 mm (0.031 in.) to the maximum permissible for each type of sheet shall be 1 per 0.4 m² (4.3 ft²) of sheet area for thickness up to and including 12.0 mm (0.472 in.). For Finish 3 sheet the maximum permissible dimension for dirt and contaminants shall be 4.8 mm (0.187 in.); all other requirements above apply.

5.6.2.4 Other Defects—Minor defects, such as mold or handling scratches, or die lines that can be removed by polishing, shall be permitted provided these are not objectionable individually or in group patterns. Excluding side letgoes for masked and unmasked sheets in thicknesses greater than 51 mm (2.004 in.) and for unmasked sheets that are thicker than 6.0 mm (0.236 in.) up to and including 51 mm (2.004 in.), defects within 25 mm (0.984 in.) of the untrimmed edge of the sheet, that do not significantly reduce mechanical strength of the sheet, shall be permitted. Side letgoes for sheets thicker than 51 mm (2.004 in.) may exist providing they do not extend more than 0.4 mm (0.016 in.) below the surface. Side letgoes for unmasked sheets thicker than 6.0 mm (0.236 in.) up to and

ASTM D4802 with regards to Chips, Dirt & Other Defects in Sheets Cont'd

including 51 mm (2.004 in.) shall be allowed within a 50 mm (1.97 in.) band from the untrimmed edge of the sheet. For Finish 3 sheet, the maximum permissible length for mold scratches shall be 25 mm (0.984 in.); the maximum permissible length for medium or heavy handling scratches or abrasions shall be 50 mm (1.97 in.); the maximum permissible length of light-handling scratches or abrasions shall be 153 mm (6.024 in.); and scratches or abrasions less than 6 mm shall be disregarded unless they form a concentrated pattern that may affect the serviceability of the sheet. For Finish 3 sheet, the maximum permissible frequency for allowable scratches and abrasions as defined above shall be one per 0.4 m² (4.3 ft²) of sheet area.

PLEASE READ BEFORE **INSTALLING**

IF THIS SHEET IS TO BE APPLIED TO A SHEETROCK WALL OR WOOD SUB-SURFACE PLEASE APPLY A COAT OF CONTACT CEMENT ADHESIVE TO THE **SUB-SURFACE ONLY**.
NO ADHESIVE ON THE BACK OF THE NUVACOR SHEET

LET THE ADHESIVE 'FLASH-OFF' SO THAT IT IS DRY TO THE TOUCH.

PEEL PART OF THE RELEASE PAPER BACK FROM THE NUVACOR SHEET (EXPOSING THE SELF ADHESIVE BACK). ALIGN THE SHEET TO THE SUB-SURFACE SO THAT IT IS SQUARE. APPLY SOME PRESSURE TO THE EXPOSED SECTION SO THAT THE SHEET AND THE SUB-SURFACE ARE SET. PULL THE REST OF THE RELEASE PAPER BACK OFF THE SHEET AS YOU GUIDE THE SHEET INTO PLACE.

APPLY FIRM HAND PRESSURE ACROSS THE FACE OF THE SHEET SO THAT THE SHEET AND THE SUB SURFACE ARE WELL BONDED.

REMOVE THE PROTECTIVE MASKING PAPER FROM THE FACE OF THE SHEET.

THANK YOU

LIMITATION OF WARRANTY

Limited Warranty:

Seller warrants that the products sold hereunder shall be merchantable quality and shall conform in all material respects to Seller's standard specifications. Buyer assumes all risk as to the results of the use of the products purchased, whether used singly or in combination with other materials in any process.

Limitations of Claims:

At Seller's option, Seller will replace, without additional charge, products which do not comply with the warranty or, upon return of the products at Seller's expense, refund the purchase price.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, BASED ON ANY COURSE OF DEALING OR USAGE OF TRADE OR OF FITNESS FOR PARTICULAR USE OR OTHERWISE OTHER THAN THAT STATED HEREIN. SELLER'S LIABILITY FOR ANY LOSS OR CLAIM WHATSOEVER, INCLUDING A CLAIM FOR BREACH OF THE WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED SOLELY AND EXCLUSIVELY TO REPLACEMENT OF DEFECTIVE OR NON-CONFORMING PRODUCTS OR, AT THE ELECTION OF SELLER, TO RETURN OF THE PRODUCTS AND REPAYMENT OF THE PURCHASE PRICE IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER ACTUAL DAMAGE OR AND SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES.

Any course of dealings between the parties to the contrary notwithstanding. Buyer is responsible for inspection of the product upon receipt and prior to any cutting or fabrication. Any claim by Buyer for breach of warranty shall be deemed waived to the extent it could have been determined by sub-inspection, unless presented in writing to the Seller with ten (10) days from the date of receipt of the products to which such claim relates. In all events, claims not made within two months after receipt are deemed waived.

Some products are shipped with a protective film to protect product during transit and storage. Such products must be inspected for defects prior to cutting or fabrication. Surface must then be protected during cutting and fabrication. Failure to remove the protective film to inspect for defects prior to cutting or fabrication is at Buyer's risk.

Seller shall have no liability for defects or other failures caused to fabricate, install upkeep or maintain the products in accordance with NUVACOR's instructions or damage to protect occurrence after shipment to the initial purchaser.

Buyer assumes all risk and liability for loss, damage or injury to the person or property of Buyers or others arising out of use or possession of any products sold hereunder. Any questions concerning this warranty or requests for service should be mailed to NUVACOR Corporation.

SAFETY PRECAUTIONS

A Note About Safety:

- . **Use care when handling NUVACOR sheets - sharp or burred edges can cause cuts.**
- . **Always wear eye protection when cutting, sanding or routing.**
- . **Work in a well ventilated area. Cutting, routing, sanding and edge buffing generate nuisance dust. Use tools with dust collectors and wear a dust mask.**
- . **Refer to Safety Data.**

OVERVIEW - TYPICAL FABRICATION PROCEDURE

MMA (Acrylic) Based Sheet Product 1/8" (3.2mm) & 1/16" (1.6mm)

Note* If you will be Fabricating our Polycarbonate Based Sheets in an .040 (1mm) or .030 (.75mm) thickness please refer to the information of Page 19.

(Follow in order listed)

STEPS TO FABRICATE

This overview section is offered as a refresher to common woodworking fabrication procedures and techniques most commonly used with High Pressure Laminate and other Surfacing Materials

*** Note: If you are using our NU-100 Hi-Performance Adhesived Backed Products please be sure to review the information provided on Page 18 of this Manual. Thank you.**

1. Verify that sheet color and grade are as specified.
2. Cut material to size using 10", 80 tooth 5° positive rake - modified triple chip blade. Allow 1/8" - 1/4" overhang for flush trim.
3. Apply adhesive on panel edges and NUVACOR strips by brushing or spraying. (A quality edge bander and hot melt adhesive may also be used for applying NUVACOR edges). (See edge section on pg 14).

OVERVIEW - TYPICAL FABRICATION PROCEDURE **continued**

4. First apply NUVACOR to panel edges;
flush trim using a 3 fluted carbide tipped ball bearing guided trim bit. A 2 fluted bit can be used also.

5. After flush trimming to insure that the Nuvacor edge is even with the wood panel it is recommended that a Belt Sander be used to evenly sand the edge and wood to an even height. Use caution as Belt Sanders can be aggressive in their cutting power and speed if caution isn't used.

6. Spray, roll or brush non-pigment translucent adhesive to substrate and back of NUVACOR. Allow the adhesive to 'Flash-Off' excess solvents in the adhesive as per manufacturers recommendations and adhere the two pieces only after surface is 'dry' to the touch.
(See adhesives section page 9 & 11)

7. If you are using Nuvacor sheet with our NU-100 Hi-Performance Adhesive film remove the protective paper being careful to keep the adhesive film clean of dust or wood particles. **Don't forget that if the wood sub-surface is rough or uneven it may be advisable to spray a light coating of contact cement on the wood sub-surface only.**

8. Next apply NUVACOR to panel face allowing minimum of 1/8" overhang.

OVERVIEW - TYPICAL FABRICATION PROCEDURE - Continued

9. Route the NUVACOR panel overhang using a flush cut router carbide bit.

10. Bevel edges using 45° carbide, two fluted chamfer profile router bit.

11. Sand edges (dual action or orbital sander).
- 1st pass - 100 grit or 80 micron paper
- 2nd pass - 320 grit or 40 micron paper

OVERVIEW - TYPICAL FABRICATION PROCEDURE - continued

12. Buff edge with an in-line polisher or High Speed Drill with Buffing wheel attachment. Apply rouge to buffing wheel and buff until sanding marks are completely removed.

13. Polish edge to high gloss using clean cotton buffing wheel.

14. Remove protective sheet; clean inspect and package for delivery.

15. -To camouflage the seam use a standard indelible color matched marking pen.

- Clean off excess ink after drying with clean cloth slightly dampened with denatured alcohol or commonly available Citrus Cleaner. See recommended Tools and Supplies on Page 10

16. NOTE; Care must be exercised in packing finished pieces.
Pack carefully as you would any fine furniture.

RECOMMENDED TOOLS AND SUPPLIES

ROUTERS:

Trim Router:
Porter Cable Model #7301

Beveling Router:
Porter Cable Model #690LR Heavy Duty Router

EDGE SANDER:

Porter Cable Model #332 5" Random Orbital Sander

POLISHING:

DeWalt DW101 VSR High Speed Drill

The following Items can be found through McMaster-Carr Supply at Tel: (404) 629-6500
Or on the Internet at www.mcmaster.com

Cotton Polishing Wheels – Shank Mounted 4" Dia. – McMaster Carr # 49025A33

Sand Paper Discs:

5" Dia. X 100 Grit – McMaster-Carr #47805A431

5" Dia/ X 320 Grit – Mcmaster-Carr #47805A426

Polishing Compound:

Plastic Cut & Polish 2 1/2lb. Bar – McMaster-Carr #4801A2

SURFACE POLISHING & REPAIR SOLUTIONS:

Where Surface scratches have developed either during fabrication or over time through normal wear and tear there are a number of commercially available Liquid Polishing compounds that work very well with both our Vertical Grade MMA Acrylic based sheets as well as with our Polycarbonate based sheets.

One such product commonly available is a Polishing Liquid called Novus. This product comes in 3 Grades
-Novus 3 For Heavy Deep Scratch Removal – Novus 3 not for use with the Polycarbonate Based Sheet
-Novus 2 For Fine Scratch Removal
-Novus 1 For General Clean & Shine.

One source of supply is: http://www.lotionsource.com/novus_plastic_polish.html

Another Product is Finesse-It by 3M - One source of supply is:
<http://www.starmarinedepot.com/3M+Marine+Finesse-it+II+Finishing+Material.html>

RECOMMENDED TOOLS AND SUPPLIES (Continued)

CARBIDE TIPPED FLUSH TRIM BITS & BEVELLING BITS:

3 Fluted Trim Bits are preferred because they give a smoother cut, eliminating potential invisible stress Fractures in the material.

One Source of Supply is:

Central Penn Precision Tooling
1415 Wekert Road
Millmont, PA 17845

Tel: (570) 922-0042 Fax: (570) 922-0047

2 Fluted Trim Bits can also be used, but should be used a little slower during the flush trimming process and beveling process in order to minimize the possibility of stress fracturing.

ADHESIVES:

CONTACT CEMENT:

A good high quality, high solids, Solvent Based Contact Cement is preferred.

One Source of Supply is:

CP Adhesives
CP Industries, Inc.
P.O. Box 1103
Clifton, NJ 07014

Tel: (973) 473-1810 Fax: (973) 473-3044

Item # 19FS-821 NAT-006 5 Gallon Pale CSC #821 Nat.

CLEANING & FINISHING:

For cleaning the surface of Nuvacor sheets of oversprayed Contact cement or other surface adhesives one can use a good quality Citrus Cleaner.

One Source of Supply is: McMaster-Carr Supply at Tel: (404) 629-6500. Or on the Internet at www.mcmaster.com

Part #7429T51

Use with a good quality Paper towel like Bounty or with a cotton rag. Because the Citrus Cleaner will leave a 'filmy' residue on the surface one can use Windex, or other glass cleaner to give the surface a final cleaning, making sure that the glass cleaner has been fully cleaned off and the surface is dry to the touch.

HELPFUL HINTS ON TOOL & SUPPLIES SELECTION AND USE

1. Translucent (non-pigmented) adhesive will help give you an inconspicuous glue line.
2. Triple chip grind saw blades come in various qualities. Since overhang should be kept minimum, the quality of your saw (rough) cut is very important. The best for the dollar is X 10" or 100T X 12". Modified triple chip 5° positive rake with minimum blade clearance.
3. Routers for trimming and profiling
4. Carbide router bits - Make sure all commercial and/or industrial router bits are of good quality,
NOTE - keeping your pilot bearing clean and free spinning will avoid damage to your edging DRI-COTE is recommended.
5. Sanding of the profiled edge is minimal but can damage the surface if not properly executed.
 1. Always have masking or protective film on surface when sanding and polishing profiled edge,
 2. An orbital palm sander is the preferred tool to use when sanding out router marks. Dual action sanders will work. You must exercise caution as sanders are 'aggressive'. One should make sure to sand the beveled edge to a point just below the seamline where the top meets the edge. This will guarantee a smooth even line between the transition line.
6. Polishers - Whether you use air or electric, choose a tool that can be operated with two hands (not automotive 7"/9" polishers), as the area being polished is only the routed and sanded edge. Anything large and bulky would be hard to control. The preferred tool is the Dynabrade #53003 drive motor adapted to receive 1/4" shank (Air Tool Service Model 1079A 1/4" collet). However any High Speed Drill can be used.
7. Polishing wheels and compounds - 3" to 4" polishing buffs - larger wheels will work but are harder to control. Compounds should be of the dry type applied directly to the polishing buff. Liquid compounds will work but clean-up becomes a problem.

ADHESIVES

NUVACOR is laminated with contact adhesives similar to those used with high pressure decorative laminates.

The recommendation on page 9 contains adhesives that are recommended based on four criteria.

1. Translucent (or nearly clear) to provide an inconspicuous glue line.
2. Compatible with NUVACOR and recommended substrates.
3. Available in spray, brush and roller grades.
4. Available in solvent, non-flammable chlorinated solvent, and non-flammable water borne types; solvent based systems are preferred where permitted.

SUBSTRATES

The substrate should be good quality plywood, particle board or medium to high quality fiberboard. The face of the substrate must be sanded smooth and be free from grease, wax, dust, chips or other foreign matter which may telegraph through the decorative NUVACOR surface after bonding.

NUVACOR faced panels must be of balanced construction; high pressure laminate. NUVACOR and low pressure melamine are effective depending on application and size of product. Two sided melamine board is often used as a substrate with good results.

To insure good bonding, consult and follow the adhesive suppliers instructions on preparation of substrates, surfaces and adhesives (i.e. the surfaces must be free of dust, dirt, oil, wax or grease). Adhesive must be uniformly applied and proper open time at 75 (23.9 C) observed before bonding with rotary pinch roller. When a pinch roller is not available, a small J roller with a maximum width of 3" is recommended. This type of roller, with a long handle, will give an average 25# lineal inch of bonding pressure which is sufficient for most contact type adhesives.

It is recommended that both the NUVACOR and the substrate be brought to an equilibrium temperature (approximately 75 - 23.9C) and humidity (of 45 to 55 percent) before fabrication and bonding.

Fabricated parts should be stored for at least 48 hours before exposure to extreme temperatures and humidity changes. (It requires this minimum time for most contact type adhesives to reach initial bond strength).

If adhesive clean up is required solvents such as alcohol, turpentine or napha, may be carefully used. (NOTE: although these solvents will not harm NUVACOR surfaces, they do affect the adhesive bond at the glue line and most are flammable).. Abrasive based cleaners should not be used. (NOTE: Lestoil can also be used for this purpose if only a small area is involved,)

FABRICATION TECHNIQUES

NOTE - CAUTION !! In all cutting and finishing procedures, safety glasses should be worn and precautions taken to protect eyes from particles. Gloves should be worn and caution should also be exercised in handling since sharp or burred edges can cause hand cuts.

1. Sawing: To avoid edge distortion, it is important the saw blade teeth cut into the back side of the sheet and that the saw access plate be refitted to reduce free space surrounding the blade. (this may be accomplished by using a 1/4" hardboard as an overlay carrier board. Typical blades for 3450 RPM table saw:

Number of teeth:	60	80	100	120
Diameter:	8"	10"	12"	14"
Speed Surface Ft/Min	8000-15000 ft (2438-4572 mm)			
Rake Angle:	5° degree positive			
Kerf:	.0684 to 0.125 in (213-2.79mm)			
Carbide:	Grade C-4			

(NOTE: Minimum blade clearance is recommended to minimize chipping).

- . Saber Saw Use B-1 nonferrous metal, hollow ground blade. Ten (10) teeth per inch
- . Band Saw Use B-1 nonferrous metal, hollow ground blade. Ten (10) teeth per inch
- . Hole Cutting Typical carbon steel - By Metal hole cutters.

NOTE: Through testing we have determined that the best sawing results are achieved with cutting NUVACOR with a 10" 80 tooth, 5° positive rake - modified triple chip blade.

2. Routing: May be accomplished using electrical or air powered routers - carbide cutters are necessary. The speeds recommended are the same as those used in standard woodworking practices. It is important to use a router with adequate horsepower to maintain cutting speeds (based on the type and amount of material to be cut). For special edge trimming very high speed routers (approximately 22,000 RPM) are available and will produce smooth edge. Also, the less overhang removed, the less labor on the router; 1/8" (3.175mm) should be minimum. The following router bits are recommended:

For Flush cuts / trimming: 2-3 flute laminate trim bit with wall bearing guide

For profiling: 45° two flute chamfer bit
22° Two Flute chamfer bit

EDGES

EDGES:

Fabrication procedures and edging materials used with NUVACOR are similar to those used with high pressure decorative laminate. Some of the materials used for edge banding

NUVACOR

Wood Borders

Laminate

Materials such as Corian® are also often used in combination trims, pulls, and inlays to create various designs.

NOTE: Vertical grade 1/8" (3mm) NUVACOR is recommended for best results for edging.

When edging with NUVACOR panel edges are banded first. Then NUVACOR is applied to the panel face and the face is trimmed. The edge is then bevelled using a 45° or 22° chamfer bit. Subsequent steps are sanding and buffing.

A quality edge bander and hot melt adhesive may be used for applying NUVACOR edges. Speeds and temperatures similar to those used for high pressure laminates are recommended.

Edge Sanding

The following is the recommended edge sanding procedure.

Equipment - Orbital (10,000 RPM) or dual action sander.

1st pass	100 grit or 80 micron paper
2nd pass	320 grit or 40 micron paper

NOTE: Clean and wipe off edge after each sanding pass.

Buffing/Polishing Edges:

Buff edges using a Dynastraight In-Line Polisher, Model # E (or equivalent) at 3400 RPM; a buffing wheel attached to the end of a high speed, hand held electrical drill may be used. Apply Tripoli polishing compound to buffing wheel and buff until sanding marks are completely removed. Polish to high gloss using a clean buffing wheel #90024 available from Dynabrade Corporation.

NOTE: to camouflage seam line use a standard indelible color matched marking pen clean excess ink after drying with clean cloth slightly dampened with denatured alcohol..

SEAMS

Butt joints or seams are not recommended with NUVACOR as it is impractical to eliminate slight variances in thickness from sheet to sheet. The following are recommended

Method 1 (Bevel edge)

Leave protective sheet on NUVACOR surface

Bevel the joining edges of the two NUVACOR panels to be joined, sand and polish as already explained and recommended - do not butt factory edge

Method 2 (Strip/Reveal)

Leave gap (1/16") between sheets

Place bevelled strip with bevelled edges across gap; adhere with silicone or contact adhesive. (When using silicone secure strip with masking tape until silicone sets)

NOTE: In order to butt NUVACOR panel to panel, the edges must be machined
DO NOT BUTT FACTORY EDGES.

FORMING

FORMABILITY

.040 Polycarbonate Cold Forms to a Radius of 4".

1/16" forming grade (VF-6): Heat forms to 6" radius (150 - 170 F)
Cold forms to 9" radius

1/8" Vertical Grade (V-12): Cold forms to 16" to 18" radius)

Horixzontal Grade (H-12) is not recommended for formed applications.

Procedure for Forming:

1. Cut panels or strips over size (similiar to laminate edging)
2. File cut edges with minnimum grade file to remove chips this will eliminate possible cracking when bends are made.
3. The use of a heat gun placed at the area to be radiused will reduce the effort required to form NUVACOR. CAUTION; Take care not to overheat NUVACOR surface. Do not exceed 170 F - protective backing could be damaged.

NOTE: Best long term results are obtained when the sheet being formed extends past the radius on to a tangent by 1 - 2".

CUT OUTS HARDWARE APPLICATION

Cut Outs: As with laminate or solid surfacing, the inside of any cut outs should be smooth, with radiused corners to avoid stress points.

Hardware Mounting:

Important Notes:

1. Always pre-drill pilot holes
2. Hole should be a minimum of 1/32" larger than screw.
3. Forcing or screwing NUVACOR with a pilot hole the same size or smaller than the screw will result in stress which will create star cracking in the NUVACOR.

ADDENDUM:
ADDITIONAL INFORMATION ON ISSUES SPECIFIC TO OUR
NEW NU-100 HI-PERFORMANCE ADHESIVE BACK

IT IS IMPERATIVE WHEN FABRICATING NUVACOR SURFACING WITH OUR NEW:

NU100 HIGH PERFORMANCE ADHESIVE BACK

THAT THE SURFACE TO WHICH YOU WILL BE LAMINATING TO BE AS FREE OF DUST AS POSSIBLE AND AS SMOOTH AS POSSIBLE IN ORDER TO INSURE THE HIGHEST DEGREE OF ADHESION POSSIBLE BETWEEN THE SUB-SURFACE AND THE NUVACOR LAMINATE.

AFTER TESTING, IF IT IS DEEMED THAT A STRONGER BOND IS REQUIRED BETWEEN THE NUVACOR SHEET AND THE SUPPORTING PANEL(THE SUB-SURFACE), IT IS POSSIBLE AND ADVISABLE TO SPRAY A THIN LAYER OF CONTACT CEMENT ADHESIVE ON THE WOODEN SUPPORT PANEL, OR SUB-SURFACE, ALLOWING IT TO 'FLASH-OFF' AND THEN ADHERING THE ADHESIVED BACKED NUVACOR DIRECTLY ONTO THE CONTACT CEMENT SPRAYED SUB-SURFACE.

IF YOU HAVE ANY ADDITIONAL TECHNICAL QUESTIONS PLEASE FEEL FREE TO CONTACT US AT:

(201) 413-1776 OR (570) 966-5003 OR at Service@nuvacor.com

**OVERVIEW - TYPICAL FABRICATION PROCEDURE
FOR**

Polycarbonate Based Sheet Product .040 (1mm) or .030 (.75mm)

Follow all of the fabrication steps in the Fabrication Procedures Detailed for our 1/8" and 1/16" MMA Acrylic Based Sheet Product on Pages 4 through 7

Tools, Adhesives, Edges etc.. are all handled in a similar manner.

THE ONE EXCEPTION TO THE FABRICATION PROCESS IS THE FOLLOWING:

Because of the thinness of the material you will omit the 45° Beveling Step.

To Finish Edges, you can use an Orbital Sander starting with a 320 Grit abrasive and proceed to a 600 Grit Abrasive slightly rounding over the edge to 'soften' the look and feel of the hard edge, then lightly buff the edge with a liquid compound like Finesse-It or Novus 2

While you can lightly buff the edges once they have been trimmed and sanded smooth in order to give a smooth polished edge to the material **you have to be careful not to friction burn the Nuvacor sheet.**

Polycarbonate will friction burn much more easily than Acrylic and Care should be taken.