# **Fabrication Techniques**



# Framing Technique

#### Skin Method

#### **Description**

Single skin of Neatflex attached to a framework.



#### **Example Applications**

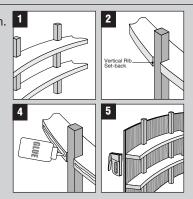
Used in applications where strength, but light-weight is an advantage, such as reception desks exhibition cabinets, columns, displays, wavy walls, shop fixtures, stage and film sets.

#### **Features & Benefits**

- Fast fabrication
- Fast finishing
- · Heavy duty applications

#### **Directions**

- 1. Fabricate a framework with sufficient shaped and supporting ribs to support the Neaflex skin. For example curved ribs would typically be set at 14" to 16" centers.
- 2. Straight ribs used to support the curved ribs should be set-back from the face of the curved ribs to ensure they do not interfere with the Neatflex.
- 3. Cut the Neatflex to rough shape and offer up to the framework to ensure a good fit. Position the Neatflex grooved face inwards.
- 4. Apply a good coat of wood glue to mating surfaces on the framework and Neatflex, and finally position.
- 5. Staple into position with sufficient staples to retain the shape until the adhesive holds.
- 6. Trim to shape and finish in the normal way.



# Frameless Technique

#### **Double Skin Method**

#### **Description**

Neatflex can be combined with itself, Neatform Bendy MDF, plywood or laminate to create frameless free form curves.



#### **Example Applications**

For fabricators who mainly work with bending plywood, the Neatflex double skin technique offers fantastic design and fabrication opportunities, whilst saving substantial amounts of time during fabrication and finishing.

Applications include display units, screens, display panels, shop fixtures, stage and film sets

#### **Features & Benefits**

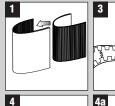
- Free-standing curved shapes
- Show surfaces on both sides
- From 3/4" to 11/2" thick

# Double Skin Method - Directions

- 1. To create a free-standing curved shape with Neatflex, first bend the piece of Neatflex and the other material to the approximate shape (grooved face inwards), and roughly cut to size.
- 2. Lay both sheets flat and apply a good even coating of wood glue to the mating surfaces of both sheets, while noting that it is not necessary for the Neatflex grooves to be filled with glue. A paint roller is an ideal tool for this job.

Please note - contact adhesive should not be used with this method.

- 3. Place the two sheets together and bend to the finished shape.
- 4. While the glue is still wet, clamp into shape, applying moderate pressure to both faces to ensure a good bond, and leave to set. Follow the adhesive manufacturer's guidance on curing times.
- 5. When released the resulting Neatflex structure will retain its shape, ready for trimming and finishing.









# **NEAT**FLEX<sup>™</sup> the ultimate ¾" material bendy birch for custom curves

# 45% less weight than regular MDF plus all the qualities of birch plywood

# **Neatflex Benefits**

- Labor saving
- One piece frame construction
- Easy to construct frameless curves
- Suitable for heavy duty applications

## **Neatflex Characteristics**

- 3/4" thick
- 96" x 48" sheet cross cut / cross grain
- S grade birch plywood face on an MDF Lite platform
- Full range of curves from 12" radius

Neatflex can be combined with itself, Neatform Bendy MDF, plywood or laminate to create frameless free-form curves. Neatflex can also be attached to a regular framework.

# **Neatflex Specification**

### **Product Characteristics**

Neatflex has a  $^5/_{32}$ " S - Grade Birch plywood face bonded to an MDF Lite platform. It comes in 96" x 48" Cross Cut / Cross Grain sheets with un-grooved border edges, approximately  $1^3/_4$ " wide on the two edges running parallel with the grooves.

# **Bending Capabilities**

The typical minimum bending radius obtainable using Neatflex is 12". If a tighter radius is required it is best to use Neatform Bendy MDF which has a minimum bending radius of 6". Bending capabilities of Neatform and Neatflex may vary with the moisture content and temperature and, because it is manufactured from natural raw materials, it may vary slightly from one batch to another.

# Water & Fire Resistance

Neatflex is not made from fire resistant MDF nor is it recommended for wet applications.

# **Temperature Conditioning**

Neatflex should be acclimatised the same as the surfacing material, adhesives, paints or lacquers to be used. If available, refer to the fabrication guidelines for the surfacing material, adhesives, paints or lacquer.

# **Dimensions and weights**

## **Cold Conditions**

The bending characteristics of Neatflex and other materials such as laminate vary with temperature. Care must be taken, especially in cool conditions, that the materials do not become too brittle to work with.

# Surfacing

Because of the wood grain face, laying up with veneer prior to bending is not recommended.

## Handling

Care should be taken when handling Neatflex. The size, weight and flexibility of a full sheet will generally require two people to ensure that the material is not over-flexed or broken.

## Storage

Neatflex should be stored flat in such a way that both surfaces are protected. Store in a dry area and avoid direct contact with the floor.

# **Health and Safety**

When working with any timber based product including MDF it is important to take health and safety seriously. Protective goggles and a dust mask are essential. MDF must be cut in a well-ventilated area and all machining tools should be fitted with dust collection systems. We recommend that you visit the Material Safety Data Section

of our web site www.neatconcepts.com

Panel Size	Thickness	Wt./Sheet	Wt./Sqft	Pallet Quantity
96" x 48" (Cross Cut)	3/4"	51 lbs	1.63 lbs	20 panels



Email: info@neatconcepts.com Web site: www.neatconcepts.com