A Premium Paper Board for Load-Bearing and Structural Applications

SWEDBOARD® FIBRE

# FABRICATION GUIDE


Image courtesy of DMR Graphics

3A Composites USA

3ACOMPOSITESUSA.COM/DISPLAY / 800.626.3365

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# INTRODUCTION

Thank you for choosing a 3A Composites product for your graphic display applications.

This Fabrication Guide was created in order to incorporate the most common fabrication methods that are used with 3A Composites' line of graphics display products.

**Important Notes:**

- The information contained in this publication is based on our current level of knowledge and is, in our opinion, reliable. However, we cannot guarantee the correctness of this information for every application and for the results arising from their use.
- The user or converter is always responsible for ensuring that the materials and processes are appropriate, cost-effective and suitable for the intended purpose and location, and that they comply with the local laws and regulations.
- Technical knowledge and skills as customary in trade and industry, a normally developed capacity to make judgements as well as knowledge and observance of the applicable regulations appertaining to work safety are assumed.

The date of the last revision is shown on the bottom right hand corner of each page. Please make sure you have the most current version by going to 3acompositesUSA.com and selecting the fabrication manual from the downloads section.

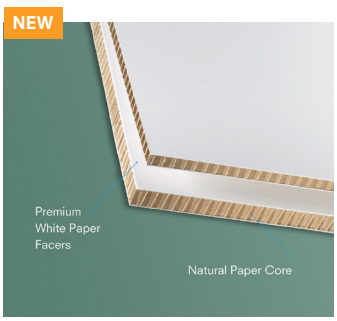
If you have any further questions about our product or about how to use this manual, please feel free to contact us at 1-800-626-3365.

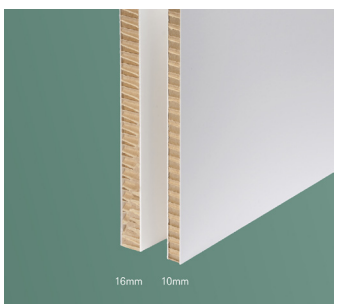
**PLEASE NOTE:**
**TRIALING IS RECOMMENDED TO ENSURE SUITABILITY FOR THE PROPOSED APPLICATION AND FABRICATION BEFORE FULL-SCALE COMMERCIALIZATION.**

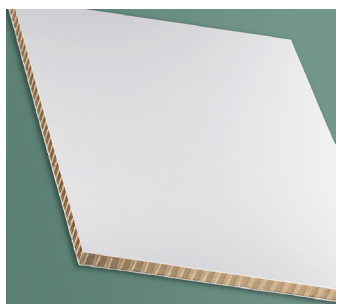
# INTRODUCTION TO SWEDBOARD® FIBRE

## WHY CHOOSE SWEDBOARD FIBRE?

SWEDBOARD® Fibre is a paper-based rigid board that offers a fully recyclable alternative for structural and load-bearing applications, like chairs & tables, as well as more demanding POP/POS and in-store display applications. The core has been specially engineered to be dust-free and the unique structure gives the material exceptional strength and stability while still being a very lightweight solution. It has premium white paper liners with a thin moisture barrier that helps to keep the panel flat even in extremely dry or humid conditions, and is optimal for direct digital print applications.



### Features & Benefits

- Incredible rigidity and load-bearing performance
- Unique core structure provides a strong, stable board ideal for heavy duty applications
- Strong, rigid and dimensionally stable - boards stay flat
- Smooth, premium white facers deliver excellent direct printing results
- 100% sustainably sourced paper for easy recyclability
- PE coated facers provide good resistance to moisture and warping
- Can be V-cut and folded for 3 dimensional displays
- Proprietary process produces a dust free core for easy & clean cutting

### Applications

SWEDBOARD FIBRE is the perfect solution for long term interior signage, exhibitions & displays, creative furniture & fixtures, or structural/load-bearing applications.

- MDF Replacement
- Exhibition Construction & Displays
- Load Bearing Platforms
- In-Store Partitions
- Furniture & Fixtures
- Shop & Interior Design
- POP / POS Displays
- Signage & Lettering
- Longer Term Promo Campaigns

# APPLICATION 'QUICK' GUIDE

| | | POP Displays | Exhibits & Fixtures | Framing | Interior Signage | Exterior Signage | Structural Signage | Interior Design | Packaging | Poster Glazing | Mechanical Assembly | Furniture Construction | MDF Replacement | Load-Bearing Platforms |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $ | **FOME-COR FOUNDATION** (Acid-Free) | ○ | ○ | ■[0] | ○ | | | | | | | | | |
| | **FOME-COR** | ○ | ○ | ■ | ○ | | | | | | | | | |
| | **FOME-COR w/ ENCORE Technology** | ○ | ○ | ■ | ○ | | | | | | | | | |
| | **FOME-COR SINGLESTEP** (Heat-Activated) | ○ | ○ | ■ | ○ | | | | | | | | | |
| | **FOME-COR CANVAS** | ○ | ○ | ■ | ● | | | ● | | | | | | |
| | **FOME-COR JETMOUNT** | ○ | ○ | ■ | ○ | | | | | | | | | |
| | **FOME-COR QUICKSTIK** (Self-Adhesive) | ○ | ○ | ■ | ○ | | | | | | | | | |
| | **DISPA** | ○ | ○ | ■ | ○ | | | ○ | ○ | | | | | |
| | **POLAR** | ● | ● | ● | ● | | ● | ● | | | | ● | | |
| | **SINTRA CONSTRUCT** | | ● | ■ | | | ● | | | | ■ | | | ■ |
| $$ | **SINTRA VERS** | ● | ● | ■ | ● | ● | | | | | | | | |
| | **SINTRA** | ● | ● | ■ | ● | ● | | ● | | | | | | |
| | **SINTRA ECLIPSE** | ● | ● | ■ | ● | ● | | ● | | | | | | |
| | **SINTRA XT** | ■ | ■ | ■ | ■ | ■ | ■ | | | | ■ | | | ■ |
| | **GATORBLANKS** | ● | ● | | ● | ● | | | | | | | | |
| | **GP APEX** | ● | ● | ■ | ● | ○ | | | | | | | | |
| | **GATORFOAM** | ● | ● | ■ | ● | ○[1] | | | | | | | | ● |
| | **GATORFOAM SELF-ADHESIVE** | ● | ● | ■ | ● | | | | | | | | | |
| | **SMART-X** | ● | ● | ■ | ● | ● | | ● | | | | | | ● |
| | **LUMEX G** | ● | ● | ■ | ● | | | | ● | ● | | | | |
| | **SWEDBOARD FIBRE** | ■ | ■ | | ■ | ■ | ■ | | | | ■ | ■ | ■ | ■ |
| $$$ | **DIBOND** | ■ | ■ | ■ | ■ | ■ | ■[2] | ■ | | | ■ | ■ | | ■ |

Trialing is recommended to ensure suitability for the proposed application before full-scale commercialization.

- ○ Short term application
- ● Medium term application
- ■ Long term application
- 0 Archival mounting applications
- 1 Black GATORFOAM is not recommended for outdoor usage
- 2 Applications such as workzone signage, canopies, pylons, and column covers

# FABRICATION 'QUICK' GUIDE

| | | Mounting | Repositioning Vinyl | Digital Printing | Screen Printing | Painting | Knife Cutting | Saw Cutting | Routing | Die Cutting/ Punching | Embossing | Forming | Creasing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $ | **FOME-COR FOUNDATION** (Acid-Free) | ◊[0] | | | | | ◊ | | | ◊ | ◊ | | |
| | **FOME-COR** | ◊ | | ◊ | ◊ | ◊[3] | ◊ | | | ◊ | ◊ | | ◊ |
| | **FOME-COR w/ ENCORE Technology** | ◊ | | ◊ | ◊ | ◊[3] | ◊ | | | ◊ | | | |
| | **FOME-COR SINGLESTEP** (Heat-Activated) | ◊ | | | | | ◊ | | | ◊ | ◊ | | ◊ |
| | **FOME-COR CANVAS** | | | ◊ | ◊ | ◊ | ◊ | | | ◊ | ◊ | | |
| | **FOME-COR JETMOUNT** | ◊ | | ◊ | ◊ | ◊[3] | ◊ | ◊ | ◊ | ◊ | ◊ | | |
| | **FOME-COR QUICKSTIK** (Self-Adhesive) | ◊ | | | | | ◊ | | | ◊ | ◊ | | ◊ |
| | **DISPA** | ◊ | | ◊ | ◊ | ◊ | ◊ | | ◊ | ◊ | | ◊[7] | ◊ |
| | **POLAR** | ◊ | | ◊ | ◊ | ◊ | ◊ | | | | | ◊[7] | |
| $$ | **SINTRA CONSTRUCT** | ◊[1] | ◊ | | | ◊ | | ◊ | ◊ | ◊[5] | | ◊ | |
| | **SINTRA VERS** | ◊[1] | ◊ | ◊ | ◊ | ◊ | ◊[4] | ◊ | ◊ | ◊[5] | | ◊ | |
| | **SINTRA** | ◊[1] | ◊ | ◊ | ◊ | ◊ | ◊[4] | ◊ | ◊ | ◊[5] | | ◊ | |
| | **SINTRA ECLIPSE** | ◊[1] | ◊ | ◊ | ◊ | ◊ | ◊[4] | ◊ | ◊ | ◊[5] | | ◊ | |
| | **SINTRA XT** | ◊[1] | ◊ | ◊ | ◊ | ◊ | | ◊ | ◊ | ◊ | | ◊ | |
| | **GATORBLANKS** | ◊ | | | | ◊ | ◊ | ◊ | ◊ | | | | |
| | **GP APEX** | ◊ | ◊ | ◊ | ◊ | ◊[3] | ◊ | ◊ | ◊ | ◊[5] | | ◊[7] | |
| | **GATORFOAM** | ◊ | | ◊ | ◊[2] | ◊[3] | | ◊ | ◊ | | | | |
| | **GATORFOAM SELF-ADHESIVE** | ◊ | ◊ | | | | | ◊ | ◊ | | | | |
| | **SMART-X** | ◊ | ◊ | ◊ | ◊ | ◊[3] | ◊ | ◊ | ◊ | ◊[5] | | | |
| | **LUMEX G** | ◊ | ◊ | ◊ | ◊ | ◊ | | ◊ | ◊ | ◊ | | ◊ | |
| | **SWEDBOARD FIBRE** | ◊ | | ◊ | ◊ | ◊ | ◊ | | | | | ◊[7] | |
| $$$ | **DIBOND** | ◊[1] | ◊ | ◊ | ◊ | ◊ | | ◊ | ◊ | ◊[6] | | ◊ | |

Trialing is recommended to ensure suitability for the proposed fabrication before full-scale commercialization.

0 Archival conservation mounting
1 Cold mounting techniques only
2 Face priming will provide better results
3 Do not expose polystyrene foam to solvent-based paints
4 1-3mm may be cut with a knife or blade
5 May be die cut in gauges up to 5mm or 3/16"
6 Punch press die set is required
7 Can be V-cut and folded to form shapes

# MATERIAL HANDLING

## Transport & Handling Storage

To receive an optimal final product, please note the following:

• Carefully transport with protection material, especially at the edges and corners. Move or stack large format sheets with two people.

• We recommend the wearing of common white cotton gloves to avoid finger marks as well as the deposition of grease and dirt particles on the surface layers.

• When lifting the sheets / pieces of material, apply as much palm as possible onto the panel in order to avoid pressure points & deformation.

• Remove the protection foil of the pallet and let the panels acclimatize prior to printing. They should adjust in the same room conditions as where the processing will take place for a period of at least 24 hours.

## Storage

• Unprocessed sheets must be stored dry, flat and away from heat and dust. Surplus sheets are best kept in their original wrapping which should be carefully resealed for storage. Never store SWEDBOARD outdoors.

• For all processing technologies, please follow the usual processing recommendations for paper products.

## Preparation of Material

• Let the pallet acclimatize prior to printing at the same room conditions as of the processing site for a period of at least 24 hours.

• If the temperature of the processing site diverges more than 50° F and/or the relative humidity differs more than 20% compared to the storage location, an acclimatization time of at least 72 hours is recommended.

## Waste Disposal

SWEDBOARD FIBRE consists of >95% paper and can therefore be recycled as paper waste. Allocation according to EN643:2014: group 5.01.00 - Mixed Papers.

Disclaimer: the material is very stiff and in larger concentrations this could cause problems in the shredder just before the pulping process in some paper mills. Therefore it is recommended to cut down the waste into smaller pieces or preferably even shred the material if possible. This can often be handled by the recycling companies that supplies paper mills with paper waste.

# GENERAL NOTES

## Acceptable Processing Methods

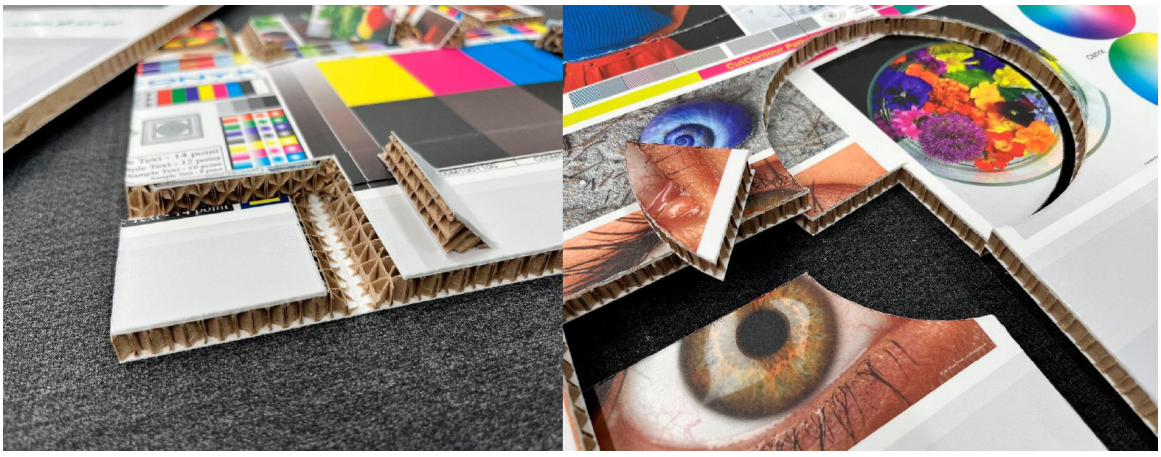
- Sawing with a circular saw
- Cutting with drawing knife and/or oscillating knife
- V-cut knife
- Folding (V-groove) for 3D objects
- Drilling (using a standard drill bit)
- Gluing
- Laminating

NOTE - Contour milling/drilling and routing is NOT recommended as the edges will have a bad result.

## Notes on Core Structure

- Unique core structure is different than the typical honeycomb paper board.
- Core of SWEDBDOARD Fibre is much denser and stronger - load capacity of board (10mm & 16mm) is about 80 tons per sqm.
- This strength & density makes it possible to apply screws and hooks into the core
- Proprietary core production process creates a clean, dust-free core even when fabricating.

Examples of material after cutting - zero dust!



# PRINTING

## General Information on Printing

SWEDBOARD Fibre has brilliant white premium facers that are ideal for both digital direct printing and screen printing. It can be directly printed without pretreatment. In general, the quality of the print result depends on the climatic conditions (including room environment, humidity, and temperature), printing machine, ink type, image composition, color management, processing speed and drying conditions.

## Direct Digital Printing

SWEDBOARD FIBRE is well-suited for digital printing due to the bright white paper surface. To achieve an optimal print result, please note the following suggestions:

- Maintain your printing machine and especially the UV lamps regularly and check the intensity of the UV radiation. Blow off the panel with ionized air before printing and consistently apply existing measures to reduce static charge.
- Use a flexible ink if you want to fold the board after printing.
- For water or solvent-based inks, we do NOT recommend SWEDBOARD FIBRE as the moisture barrier applied to the facers consisting of corona treated PE may cause adhesion issues.
- By optimizing the maximum amount of ink applied and the color profile selected, you will achieve optimal results; this also includes the adaptation of both the printing speed and the performance of the drying unit.
- Adjust the effect of the vacuum table to prevent collisions with the printer head; if necessary, fix the edges of the panels or if possible, cover free surfaces on the vacuum table to increase the suction power.
- Before further processing, the colors of ink must completely dry or harden according to the manufacturers instructions.
- Please note our guidelines on transport, handling and storage mentioned on page 7.

## Screen Printing

SWEDBOARD FIBRE sheets can be screen printed. For an optimal end product, please note the following recommendations:

- Only by using a continuously calibrated printing process in screen printing respectively by using a suitable media profile for screen printing, will you get the desired result.

- For double-sided printing, the first side must be completely dry before printing on the other side.

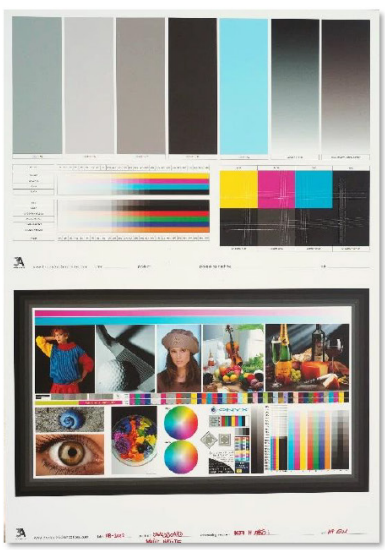
# PRINTING

## Acceptable Inks

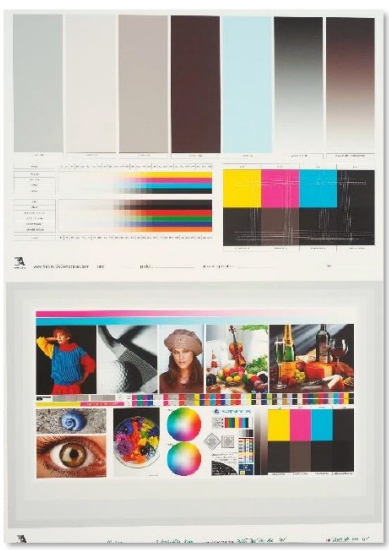
SWEDBOARD Fibre is suitanle for screen and digital printing systems. The PE coated paper facers create an excellent surface for accepting the following types of inks:

- UV and UV-LED inks
- Solvent inks
- Latex inks (HP*)
- Painting / Spraying

* Printing on SWEDBOARD Fibre with the HP Latex engine: the hot drying temperature first causes some bowing of the panel, but after about 1 minute the board flattens back out

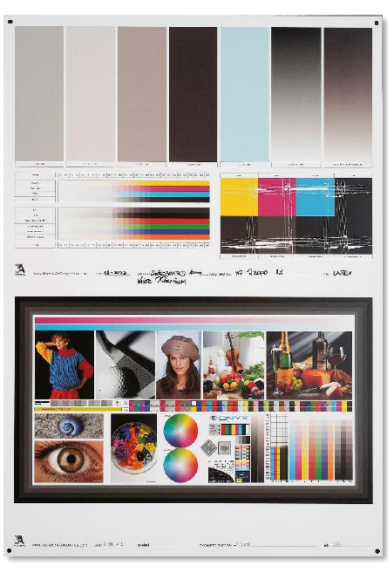


AGFA UV-LED



DURST UV

SwissQPrint UV-LED



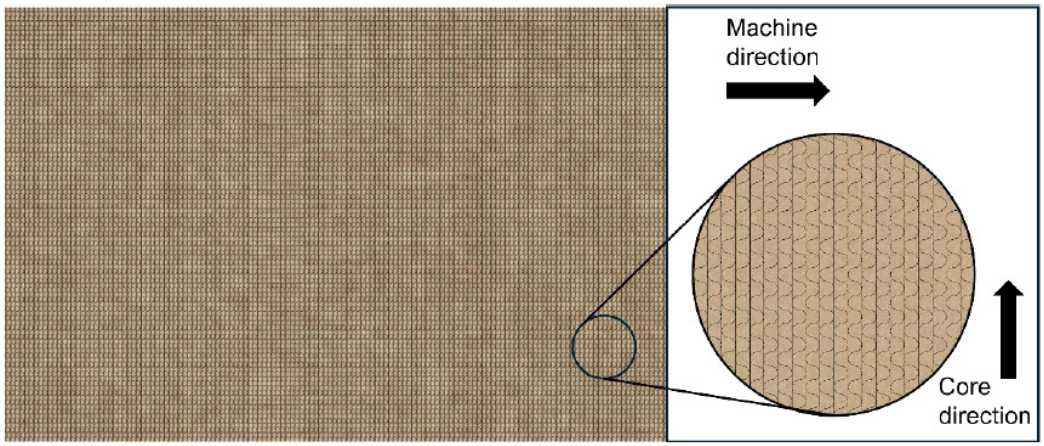
HP R2000 LATEX ink

SwissQPrint UV-LED

# CUTTING

## Contouring & Forming

The properties of SWEDBOARD FIBRE depends on the direction of the core. As illustrated in the below figure, the core is directional so that the material has a machine direction and core direction.



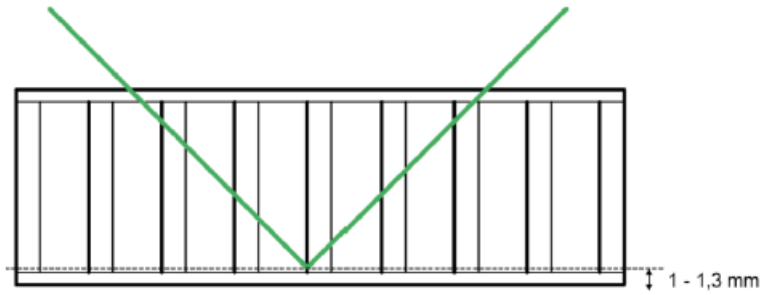

- Cuts along the machine direction offer a more unison look of the edge and provide better result for v-grooves.

- The core direction offers substantially more strength or bending stiffness. Cutting in this direction requires sharper knife blades to avoid rough edges.

When processing SWEDBOARD FIBRE in a digital cutting machine, it is possible to use a drag knife or a high-frequency reciprocating knife tool ("oscillating knife"). For both types, we recommend using only heavy-duty blades developed for stiff materials. Correct machine settings, sharp blades, and material moisture levels are all crucial aspects for a successful cutting result. For cutting complex contours, the best results are achieved with oscillating tools.

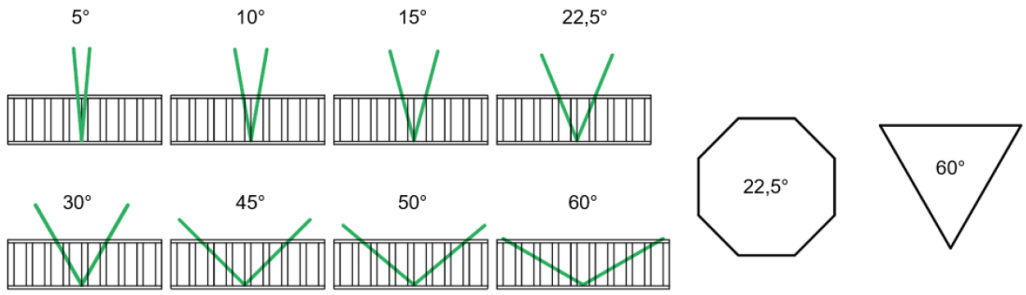
The manufacturer of your cutting system will provide you with information about the ideal setup parameters and tooling for the processing of SWEDBOARD FIBRE - we also have information from major suppliers available starting on page 13.

When making v-cuts, it is very important to use fresh and sharp knife blades to avoid ripping of the core. Make sure not to cut too deep as to avoid the tip of the knife blade cutting into the liner on the bottom side; we recommend that the cutting depth is set so that the tip of the blade is elevated 1.0-1.3mm from the surface of the cutting table.

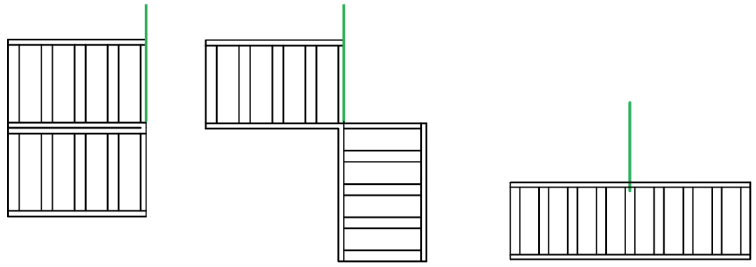


# CUTTING

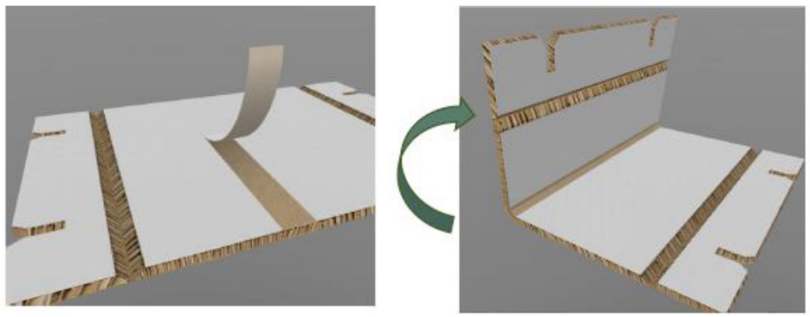
SWEDBOARD FIBRE is ideal to create three-dimensional forms. Due to its structure, it can be shaped in any direction. V-cut can be cut in various angles.




A partial cut can also be used to fold the board, in order to reduce transport format or to be used as a hinge. Just like when making v-cuts, make sure not to cut too deep to avoid cutting into the liner on the bottom side.

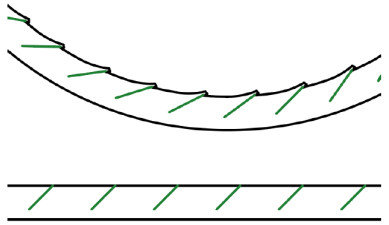


SWEDBOARD FIBRE can be bent into a round shape by removing the liner on one side.



Make a partial cut at least 1.5mm deep to cut through the top liner.
Then remove liner in the area to be bent.

Single v-cut (“bevel”) can also be used to bend the material. The cutting depth can be somewhat flexible depending on the desired radius, but in order to obtain a smooth surface without visible lines, it’s recommended not to cut all the way through the core.



Also, the distance between the cuts can be adopted to the desired radius (smaller distance allows for a smaller radius and smoother surface, but takes more time to cut and also compromises the strength).

# CUTTING WITH KONGSBERG SYSTEMS

## Notes

The settings listed are ESKO's recommendation for this material.
Settings could vary depending on the geometry of the cut file.
Material Thickness: 16mm
Machine Models: C / X / X Starter
Toolheads:

- Kongsberg C: MP HF VibraCut / HD Unit / V-notch knife
- Kongsberg X: MultiCut / FlexiHead / PowerHead
- Kongsberg X Starter: MultiCut / FlexiHead

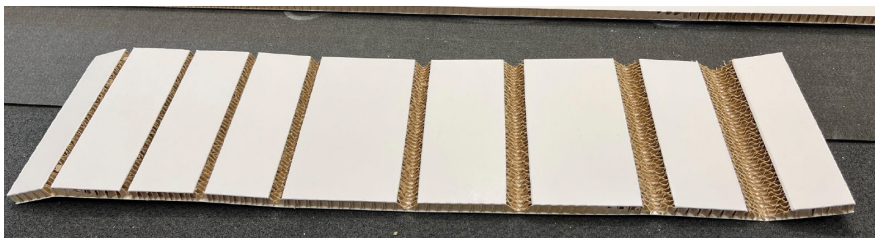
## Standard Cuts on 16mm Sheets

| Machine | Tool | Blade / Bit | Speed | Accel. | Passes |
|---|---|---|---|---|---|
| **Kongsberg C**<br>Same for XP, XP Auto | HF VibraCut Knife | BLD-SR6307<br>BLD-SR6310 | 10 m/min<br>10 m/min | 10%<br>10% | 1<br>1 |
| | HD Knife 17**<br>HD Knife 30** | BLD-TZ129<br>BLD-TZ230 | 50 m/min<br>50 m/min | 50%<br>50% | 1<br>1 |
| **Kongsberg X**<br>Same for XL, XN<br>(Insert tools for FlexiHead, MultiCut, & PowerHead) | MP HF VibraCut Knife | BLD-SR6307<br>BLD-SR6310 | 10 m/min<br>10 m/min | 10%<br>10% | 1<br>1 |
| **Kongsberg X**<br>Same for XI, XN<br>(Tools for PowerHead HD Unit) | HD Knife 17*<br>HD Knife 30* | BLD-TZ129<br>BLD-TZ230 | 50 m/min<br>50 m/min | 100%<br>100% | 1<br>1 |
| **Kongsberg X Starter**<br>Same for Kongsberg VL and V Table<br>(V-notch Insert tools for FlexiHead and MultiCut toolhead) | MP HF VibraCut Knife | BLD-SR6307<br>BLD-SR6310 | 20 m/min<br>20 m/min | 30%<br>30% | 1<br>1 |

* only for PowerHead on Kongsberg X tables. This knife is limited to straight line only, longer than 50mm (2")

** HD knife for heavy duty unit on C is limited to straight line only, longer than 50mm (2")

**** It is possible to use the V-notch insert tools (VI45 and VI30 series) for V-cutting this material, but result will not be perfect due to thickness of the blades. Better V-notch result can be achieved with the HD V-notch tools for C or PowerHead, with thinner blades.



# CUTTING WITH KONGSBERG SYSTEMS

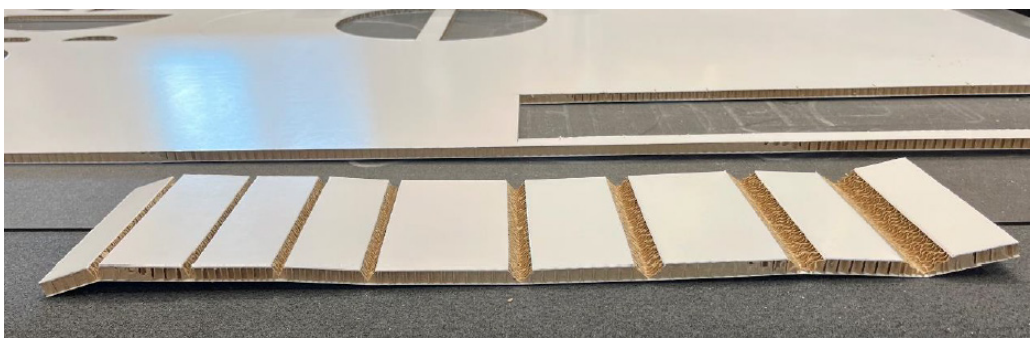
## V-Notching 16mm Sheets

| Machine | Tool | Blade / Bit | Speed | Accel. | Passes |
|---|---|---|---|---|---|
| **Kongsberg C**<br>Same for XP, XP Auto | V-Notch Knife 45°<br>V-Notch Knife 45° 10mm<br>V-Notch Knife 30°<br>V-Notch Knife 22.5°<br>V-Notch Knife 15° | BLD-TZ511 / BLD-TZ192 | 50 m/min | 50% | 1 |
| **Kongsberg X**<br>Same for XL, XN<br>(Insert tools for FlexiHead, MultiCut, & PowerHead) | V-Notch Knife 45°<br>V-Notch Knife 45° 10mm<br>V-Notch Knife 30°<br>V-Notch Knife 22.5°<br>V-Notch Knife 15° | BLD-TZ511 / BLD-TZ192 | 50 m/min | 100% | 1 |
| **Kongsberg X*****<br>Same for Xl, XN<br>(Tools for PowerHead HD Unit) | VI45-16<br>VI45-10<br>VI30-16 | BLD-DF571 / BLD-DF572<br>BLD-DF561 / BLD-DF562<br>BLD-DF571 / BLD-DF572 | 25 m/min<br>25 m/min<br>25 m/min | 50%<br>50%<br>50% | 1<br>1<br>1 |
| **Kongsberg X Starter*****<br>Same for Kongsberg VL and V Table<br>(V-notch Insert tools for FlexiHead and MultiCut toolhead) | VI45-16<br>VI45-10<br>VI30-16 | BLD-DF571 / BLD-DF572<br>BLD-DF561 / BLD-DF562<br>BLD-DF571 / BLD-DF572 | 30 m/min<br>30 m/min<br>30 m/min | 100%<br>100%<br>100% | 1<br>1<br>1 |

* only for PowerHead on Kongsberg X tables. This knife is limited to straight line only, longer than 50mm (2")

** HD knife for heavy duty unit on C is limited to straight line only, longer than 50mm (2")

*** It is possible to use the V-notch insert tools (VI45 and VI30 series) for V-cutting this material, but result will not be perfect due to thickness of the blades. Better V-notch result can be achieved with the HD V-notch tools for C or PowerHead, with thinner blades.



# CUTTING WITH KONGSBERG SYSTEMS



## Notes

The settings listed are ESKO's recommendation for this material.
Settings could vary depending on the geometry of the cut file.
Material Thickness: 10mm
Machine Models: C / X / X Edge
Toolheads:

- Kongsberg C: HF VibraCut / Viariangle / V-notch Tool / HD Knife
- Kongsberg X: HF VibraCut / RB / VI45 / HD Knife
- Kongsberg X Edge: HF VibraCut / VI45

## Standard Cuts & V-Notching on 10mm Sheets

| Machine | Processing | Tool | Blade / Bit | Speed | Accel. | Passes | RPM |
|---|---|---|---|---|---|---|---|
| **Kongsberg C** | Cut | HF VibraCut | BLD-SR6310 | 15 m/min | 40% | 1 | 0 |
| | Partial Cut | HF VibraCut | BLD-SR6310 | 15 m/min | 40% | 1 | 0 |
| | V-Notch | Variangle 30° | BLD-SF641 | 60 m/min | 70% | 1 | 0 |
| | V-Notch | Variangle 45° | BLD-SF641 | 60 m/min | 70% | 1 | 0 |
| | V-Notch | Variangle Short | BLD-SF620 | 100 m/min | 90% | 1 | 0 |
| | V-Notch | V-Notch tool | BLD-TZ511 | 50 m/min | 50% | 1 | 0 |
| | HD-Cut | HD Knife-17 | BLD-TZ129 | 70 m/min | 50% | 1 | 0 |
| **Kongsberg X** | Cut | HF VibraCut | BLD-SR6310 | 15 m/min | 40% | 1 | 0 |
| | Cut | HF VibraCut | BLD-SR6224 | 20 m/min | 20% | 1 | 0 |
| | Cut | RB-90 | BLD-SF290 | 50 m/min | 100% | 1 | 0 |
| | V-Notch | VI45-16 | BLD-DF572 | 50 m/min | 70% | 1 | 0 |
| | V-Notch | VI45-10 | BLD-DF561 | 50 m/min | 70% | 1 | 0 |
| | HD-Cut | HD Knife-17 | BLD-TZ129 | 50 m/min | 70% | 1 | 0 |
| **Kongsberg X Edge** | Cut | HF VibraCut | BLD-SR6310 | 15 m/min | 30% | 1 | 0 |
| | V-Notch | VI45-16 | BLD-DF572 | 30 m/min | 100% | 1 | 0 |

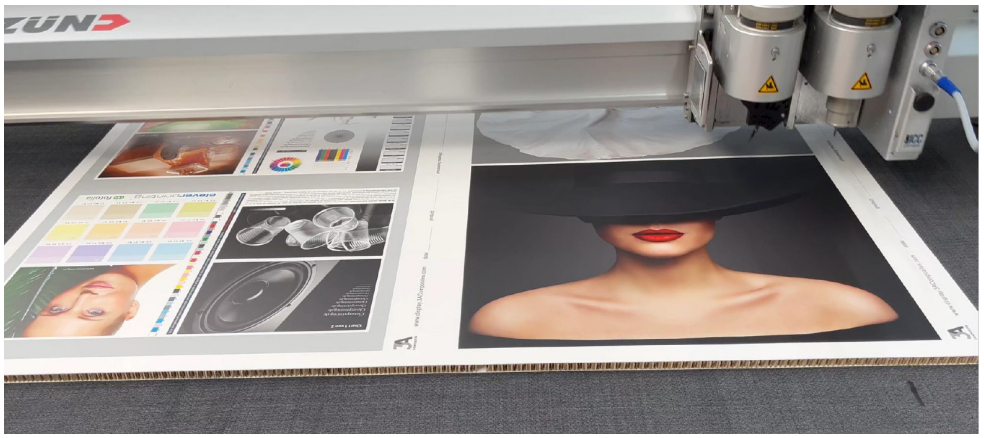
# CUTTING WITH ZUND SYSTEMS

## Through Cut

Tool: EOT-250 (Electrical Oscillating Tool)
Knife: Z201 (16mm) // Z202 (10mm)
Cutting Speed: 1000 mm/sec
Acceleration: 4

## V-Cut

Tool: VCT (V-Cut Tool)
Knife: Z71
Cutting Speed: 600
Acceleration: 3



# PRODUCT TECHNICAL DATA

## PRODUCT SPECIFICATIONS

| | SWEDBOARD FIBRE | |
|---|---|---|
| **DIMENSIONS & WEIGHT** | | |
| **Thickness** | 10 mm | 16 mm |
| **Weight per Unit Area** (approx.) | 1.8 kg/m$^2$ | 2.4 kg/m$^2$ |
| **Sheet Sizes** | 48″ x 87″ | 48″ x 87″ |
| **Sheet Width Tolerances** | -0/+5 | |
| **Sheet Length Tolerances** | -0/+5 | |
| **Sheet Thickness Tolerances** | +/- 0.4 | |
| **Tolerance in Corner Curvature from Flat** | < 10 | |
| **CORE** | | |
| **Paper Cell Core** (Sustainably Sourced) | Natural (Brown) | |
| **SURFACE** | | |
| **Liner** (Sustainably Sourced) | Brilliant white premium carton covered with a PE moisture barrier | |
| **Whiteness** | 124% (ISO 11475) | |
| **ISO Whiteness** | 90% (ISO 2470) | |

**Note:** Technical data of this product are typical ones. The actual measured values are subject to production variations.
3A Composites does not guarantee the accuracy of the data provided and disclaims liability for damages resulting from its use.

# CONCLUSION

This Fabrication Manual has been developed to assist fabricators to work with the substrate in the most efficient and effective manner. The tips and suggestions contained in this manual are the result of combined experience by fabricators in Europe.

These fabrication suggestions and product specifications are based on information which is, in our opinion, reliable. However, since skill, judgment, and quality of equipment and tools are involved, and since conditions and methods of using the substrate are beyond our control, the suggestions contained in this manual are provided without guarantee. We recommend that prospective users determine the suitability of both the material and suggestions before adopting them on a commercial scale.

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Also, normal safety and health precautions practiced in any fabricating environment should be used when fabricating the substrate.

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