

Belbien White Board Sheet is designed and manufactured for interior use.

■ Product dimension

Width : 1250mm (49 inches)
 Length : 30m/roll (32 yards/roll)
 Thickness : ca.0.2mm (ca.0.008 inches)

■ Dimensional Stability

The cut width expansion is within 0.3mm (0.012")
 Install BELBIEN on an aluminum plate with cut in the center in the size of 200mm×200mm (7.874"×7.874")
 The plate is put in an oven for 2 hrs. at 100°C (212°F). (ISO 11501)

■ Processing characteristics chart

Base material (metal) Pattern Number	Flat surface	2D curved surface	3D curved surface
	BWH (belbien White Board Sheet)	○	△

○: Good, △: Caution required, ×: Inadaptable

■ Bonding Strength

	No Primer
Aluminium Plate	over 19
Stainless Steel	over 30

After 24 hrs. of adhesion onto each of the above-mentioned substrate, peel BELBIEN off the substrate at 180° angle (N/25mm wide).

■ Chemical / Solvent Resistance

Test Result	Type of Chemicals / Solvent
No change	Petroleum Benzene
	Ethyl Alcohol
	Toluene

Testing by JIS K 6902

Composition and Benefits

- The production lot number of each product is displayed on the paper core and on the side of the cardboard carton. Please note the number before starting to work with the product. If problem occurs, please let us know the lot number.
- The product appearance can be slightly different between production lots. Please avoid applying products from different lots on the same surface.
- Do not use or store products outdoors or in any place exposed to direct sunlight, fire, heat source, direct air blow from an air-conditioner.
- Do not use the products near any heat-producing object such as a pan, kettle, or steam iron: it may result in the deterioration of the sheet.
- Some types of lighting fixtures (e.g., three-band fluorescent lamps), if combined with belbien whiteboard sheet, can cause a rainbow to appear.
- Note that if adhesive or curing tape is left affixed to the surface of a belbien whiteboard sheet for a long time, it may become sticky and difficult to remove.
- Before installing film, check compatibility between color of substrate and belbien. If the color compatibility is poor, the finish may be different from what you had expected.

Installation

Installation environment

- The temperature of installation environment needs to be from 10 to 35°C (50°-95°F).
- If the ambient temperature is below 10 ° C, the film adhesive is does not activate well. This causes poor contact, resulting in film bulging or separation. In this case, raise the ambient temperature and the temperature of the substrate.
- The substrate must be sufficiently pretreated to ensure that the surface is smooth.
- A film surface will be unrepairable if it is scratched by a thumbtack, ballpoint pen, nail, or other pointing objects.
- Each film is ruled into approx. 50-mm squares, which you can use as a guideline in cutting the film.
- Before cutting or rewinding a belbien product, place on the floor or workbench a sufficiently cleaned sheet-cutting underlay to prevent the film from being scratched or causing static electricity to attract dust and dirt onto the surface.
- Please note that when a sheet in roll form is unwound into a flat state, the separator (release paper) may be separated from the sheet.
- If a cut remainder must be temporarily stored, wind it with the separator facing inward, tape the edge with masking tape, and then keep it standing. Avoid laying it down to prevent it from being flawed or creased.

Application

- Please be careful not to get a hand or any other part of your body cut by the edge of the sheet.
- For perfect adhesive performance, make sure that the film is in full contact with the substrate. Even if the film seems to be adhered enough, a trace amount of air may be left between the film and base material. The air may expand as the ambient temperature increases, creating bulges on the surface.
- The adhesive on the backside is designed to increase the adhesion with the substrate over time.
- The substrate must be sufficiently pretreated (e.g. degreasing or sanding) to ensure that the surface is smooth.
- To apply a film, use a belbien squeegee with a soft cloth wound around it (rubbing surface with a hard object will scratch the surface, making marker hard to erase).

- When a film must be bent, curled, or overlapped on an existing film, coat the substrate thoroughly with a primer to ensure that the film will adhere to the material firmly (corners to which the film is applied should desirably have a radius of at least 2R. If a belbien film is applied by overlapping on an existing decorative film, it is not regarded as fire-safety certified).
- The sheet is sturdy. Ensure that it is in firm contact with the existing film.
- Do not use a dryer or a similar tool. If the film must be bent, however, you may want to use a dryer to heat the film while bending it or after you have applied the film since if strong force is applied, bented part will become white. (note that overheating may deform the film or result in poor contact).
- If two belbien films are connected to each other, provide a gap at the joint between the films.
- If two films are connected to each other, marker ink stains stay at the joint, which will not be removable.
- Two films of the same pattern can look slightly different from each other in color or gloss level if they are from different production lot. If you want to apply two same patterns from different production lot, please pay particular attention. To prevent a possible problem, we recommend you provide a gap between two films for the joint.
- Even a solid-color film has a correct orientation. If the orientation is different between two films in the same color, they look different. When applying films, please make sure that the orientation of the logo printed on the separator looks correct.
- Depending on the light source, environment, and viewing angle, the texture difference on the joint may become conspicuous.

Overlapping installation

- Please note that if a belbien is applied on some sorts of decorative film which already exist on the substrate, and if it is where fire-certification is required, belbien is not going to be considered as a fire-rated.
- Before applying a belbien film on an existing film, apply the belbien primer and wait until it dries. And please pay attention not to allow the primer to be extruded.

BELBIEN is produced under very strict quality control, however color and glossness may vary slightly on each product lot. Above data are based on measured values and not guaranteed values. Please kindly note that the product specifications are subject to change and revision for improvement without prior notice.

AMBTRA, Inc.

8000 Regency Pkwy. Ste. 500
 Cary, NC 27518

Tel: 919-460-1212
 www.be.bien.com

The belbien white board sheet belongs to belbien family. For information about basic handling and product data, see the section for the general belbien products on the preceding pages. Please read the following carefully to ensure correct usage.

In using belbien white board sheet

Note

- To write something, please use a marker designed for whiteboards.
- Compatibility between whiteboard belbien and markers might depend on types of markers and suppliers.
- The whiteboard belbien may reject the inks of some markers. In this case, please repeat writing and erasing several times so that whiteboard belbien and markers can become compatible.
- In the case it is difficult to erase markers in early stage of use, please repeat writing and erasing several times so that whiteboard belbien and markers can become compatible.
- Please note that ink on a joint part is likely to remain and difficult to erase.
- After a certain period of use, marker ink may become difficult to erase. Ink left for a long time is also difficult to erase.
- Markers whose quality assurance period has expired or that are nearly exhausted, ink may be also difficult to erase.
- A stained eraser may degrade in erasing performance. Please clean periodically or replace the eraser if it is stained badly.
- When a projector is used to project something on a whiteboard belbien, it may reflect the light source (create a hot spot) and give you strong impression.
- When a belbien film is bent to an external corner, ink may be difficult to erase on the bent part.
- A film surface scratched with a thumbtack, ballpoint pen, nail, or other pointed objects are unrepairable.

Marker and eraser

Recommended products

- Marker: Alcohol-based ones are recommended.
 - Eraser: Melamine foam ones are not recommended.
- Please kindly contact us for more information.

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Cary, NC 27518
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Fax: 919-460-0258
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Maintenance

- Do not use an abrasive cleaner, boiling water, solvent such as thinner or toluene, or acid or alkaline detergent.
- Wipe general stains off the film surface with a clean wet cloth, and completely wipe water with a clean, dry cloth.
- If the surface is stained badly, wipe it with a clean cloth wrung out of neutral detergent which is diluted with water. Then, completely wipe water with a clean, dry cloth.

Store

- The belbien film is sturdy and likely to cause air gaps between the film and separator. Please wind it around the paper core tightly and tape the entire width to store the rest of belbien.
- To store a belbien film, wind it around the paper core with the separator side inside. Then, place it into a plastic bag and hang it by using end caps. Then please put into the carton and store it in a dark place with a low temperature and humidity.
- Please avoid storing or leaving belbien for a long time in a place exposed to high temperature such as 40 ° C, it will cause less adhesive, resulting in poor adhesion.

Transport

- The products are packaged in a courteous manner.
- During shipment, full rolls (30 m) must be kept in packing cartons and cutmeter rolls have to be kept as specified.

Precautions in installation



Do not leave separators or remainder on the floor. It may cause you to fall down when stepping on them. The weight of full rolls of belbien white board sheet (30 m) is heavier than 10kg. Please pay extra attention in handling for your safety.



When using a primer or sealer that contains an organic solvent, ensure sufficient ventilation and keep flames away to prevent fire.

Precautions for disposing



In disposing of belbien, it will cause the hazardous gas such as hydrogen chloride. Disposal must be carried out under an authorized industrial waste disposer.