

## Sign Materials

### PERMANENT SIGN MATERIALS

Generally waterproof: Any composite, like MDO, DiBond, dura-wood, High Density Urethane. Vinyl, and aluminum.

1. **Medium Density Overlay (MDO)(permanent outdoor)** is exterior dense plywood panels that have a resin impregnated fiber overlay and that has been fused to the surface of the panel. The overlay virtually eliminates surface checking, and looks better, long after painting. Available unprimed or primed. **USE** - The typical applications of MDO are sign panels, linings, cabinets, highway and traffic signs, industrial shelving, site signs, furniture, containers and billboards.

The main advantage of wood is that it doesn't flex so it's very sturdy in a post-and-panel application. The main disadvantage is that, being a wood product, it will soak in water over the years and begin to warp. MDO can be painted in any color.

2. **Aluminum Composite Material (ACM)** a rigid metal sheet fabricated from two sheets of pre-finished aluminum and bonded to a polyethylene core. Large format printers generally use ACM for exterior signs because the material is durable and lightweight, but you can also find ACM used in indoor projects as well. Because of the material's rigidity, sign makers can route or cut it to whatever shape needed.

**OR Alumalite (composite) (permanent exterior)** is a strong, aluminum composite panel with a high density, corrugated polyallomer (CPA) core that will not swell, wick water, corrode, rot, or delaminate due to prolonged water exposure. The surface is .016-inch high-gloss painted aluminum. An aluminum surface is required on both sides for rigidity and to minimize warping. Alumalite features factory baked, acrylic-painted aluminum faces for high gloss brilliance and is warranted not to crack, chip, flake, or peel. Alumalite is fast becoming one of the more popular products in the sign industry and in many cases, it is replacing MDO. This product gives the user the amazing outdoor durability of aluminum, with the rigidity of MDO, in a lightweight product.

3. **DiBond (composite) (permanent outdoor)**

Many people think that Dibond is the perfect exterior sign board material. Dibond has a plastic core that gives it exceptional strength. Unlike other outdoor plastic sign materials, it has an aluminum surface that's attractive and resilient to weather.

Dibond signs can be cut into practically any shape or size and is good for unique sign dimensions. It costs slightly more than aluminum, but it's 10 times as strong. DiBond is a lightweight product designed primarily for either short or long-term outdoor use. DiBond is a metal substrate, with a baked enamel finish, that is recyclable, lightweight, and sturdy. It is resistant to weather and rust. Although it is lightweight, DiBond is one of the most rugged sign materials available.

4. **LusterBoard** is exterior plywood with prefinished aluminum face on one or both sides.

5. **Omega SignBoard** offers a white vinyl surface over a hardwood plywood core stronger and lighter than MDO.
6. **Dura-Wood (composite)(permanent outdoor)** is a material with more class than outdoor plastic sign materials. It looks and feels like wood, but it can resist harsh weather better than untreated wood signage. It can be customized and made into any size or shape and good for over-sized, two-sided signs that can resist the weather and look professional for years to come.
7. **Aluminum** composite panel signs are perfect for exterior or decorative use. Strong and sturdy this material is typically used for signs showing that houses are for sale. Panels are completely weatherproof and also won't be damaged in sunlight. These signs are also often designed to be rust-resistant.
8. **Acrylic (plexiglass)** is a suitable material for both indoor and outdoor use. They are most commonly used as reception signage or signage in an office setting. Because of its transparency, Acrylic is a modern signage alternative to rigid boards. Acrylic sheets are produced from a methyl methacrylate monomer and have outstanding physical, mechanical, optical, chemical resistant and thermal properties. Acrylic is often referred to as plexiglass and has a large variety of uses. An extremely versatile, highly durable plastic sheet that comes in a variety of colors. Acrylic is an excellent product for a high-quality gloss finish. **USES** -Acrylic is most often used in lightboxes. Its translucent nature allows it to project light for just this purpose. It is used for long-term interior and exterior signage. Some common uses are internally illuminated signs, architectural signs, wall directories, permanent retail signs, menu boards and trade show signs.

## TEMPORARY SIGN MATERIALS

1. **Polyvinyl chloride (PVC)** is easily installed and transported. Its matte finish hides fingerprints and is easily cut into shapes, allowing for custom applications.

This product is best suited for long-term indoor or short-term outdoor applications. When used outdoors, it must be sheltered and used in low-humidity areas, as some brands may absorb moisture and mildew when left in exposed locations. Without proper handling, it can be scratched. Some common brand names for expanded PVC are Trovicel® and Sintra®.
2. **CORRUGATED PLASTIC/ Corriboard** Indoor/Outdoor. Is a plastic cardboard. It fades and is used for temporary outdoor signage. Coroplast is a brand name. Made from 3 layers of polypropylene plastic. Is lightweight, durable, and waterproof. Commonly used for real estate sales, construction sites and promotions. This is not considered a permanent sign.
3. **VINYL (temporary)** for banners. Is a nylon-reinforced vinyl material. Banner material is typically designed for graphics on only one side. Two-sided or "block-out" material is available for specific projects. **USES** - Banners typically come in a max size of a 61-inch roll and can be easily cut down to whatever size you need. Larger sizes are available as a special order in most stores. Banners are one of the most popular types of signs, for everything from grand opening announcements, to event signage and even trade shows.

4. **Corflute (temporary)** popular material because it is lightweight, cost-effective, and versatile. Corflute can be folded or bent into any shape to create unique displays that most other materials can't achieve. Some of the most popular displays created out of Corflute are bollard covers and standees.

One of the biggest benefits of Corflute is it can be used outdoors. That is why Corflute is a popular signage of choice for use cases such as sporting events, festivals, etc.

5. **Polyester (temporary)** is frequently used for outdoor feather flags, and can generally withstand the elements for months to years depending on the conditions.
6. **Foamcore (indoor only)** a brilliant temporary sign that often seen at indoor events such as trade shows, corporate events, and press conferences. Foamcore signs are incredibly lightweight which makes them very easy to move around. Foamcore can also be printed double-sided.
7. **Forex (interior only)** a solid plastic sheet sign, commonly used around trade shows and exhibitions. Though not really intended for outdoor use, businesses do use. However, the sign is waterproof and produces a high-quality image, but too flimsy for outdoor use. Rain wouldn't be an issue, but high winds are.

## WINDOWS

1. **Self Adhesive Vinyl** is incredibly versatile. SAVs can be applied virtually on any surface and look good. Not widely known, SAVs can also be applied on the floor on a wide range of substrates such as concrete, carpet, tiles, floorboard, and road. **BEST USE is for** windows or walls.

Sources: [Permanent Sign Materials information | Beacon Images \(nextdaysigns.net\)](http://Permanent Sign Materials information | Beacon Images (nextdaysigns.net))

## Materials for movable signs, best for indoor, posters, promotions

Name	Cost	Weight	Durability	Exterior	Finish	Outdoor Use?
Gator Board	\$\$	Very Light	***	Wood Veneer	Glossy	No
Foam Board	\$	Ultra Light	**	Paper	Matte	No
Ultra Board	\$\$	Very Light	***	Plastic	Glossy	No
Sintra Board	\$\$	Light	*****	PVC	Low Gloss	Yes
Coroplast	\$	Ultra Light	****	Plastic Sheeting	Low Gloss	Yes
Dibond	\$\$\$	Light	*****	Aluminum Sheeting	Metallic	Yes

## A. SIGN TYPES: Channel Letters

### Types or Methods of Illumination

#### 1. Front-Lit (Standard Channel Letter)

- Face of each letter is fabricated with translucent acrylic and vinyl, so light shines out through the front.
- This is the most common type of channel letter.
- Each character is aluminum on the back and sides.

Modern, front-lit channel letters are illuminated internally with LEDs, lighting the “face” of each character.

- The sign face is commonly held in place with aluminum or plastic trim caps however improved manufacturing techniques also make it possible to fabricate a supremely cleaner trimless edge.
- Trim cap is available in a wide assortment of colors to help you customize the appearance of your letter set. Non-standard colors can be custom painted if needed.
- The sign face itself is constructed out of one of two types of plastic: polycarbonate or acrylic. Acrylic is shinier while polycarbonate is stronger.
- Usually, the color elements of the logo are done with cut-out translucent vinyl or, if the color of the face is solid, the acrylic itself can be in its specific color, as long as the color matches the standard colors available.
- Because of the materials used, standard front-lit channel letters are highly customizable.

#### 2. Reverse-Lit (Halo-Illuminated)

- Face of each letter is nontransparent, while the back is translucent, allowing the light to diffuse through the back of the letters instead of the front.
- Light from the individual characters is cast from the back of the letter and shines onto the wall behind providing an excellent ambiance that is softer and less overpowering.

#### 3. Halo-lit channel letters can also be mounted on top of a surface (i.e., monument sign, wall, or fabricated base) by attaching the base of each character to the mounting surface, with a full panel or individually flat cut out letters mounted behind each character to provide reflection, for a free floating, decorative effect.

- They consist of aluminum faces and returns, which are lifted off the wall or raceway allowing the LED lights inside them to shine out the sides and cast a glow around each letter, and thus creating a halo effect.
- Halo-lit letters are often used for sign projects that require a unique, classy, or distinguished look or brand image.
- They are also required or specified in locations where minimizing light pollution is considered essential.

#### 4. Front and Reverse-Lit (aka Combination-Lit or Dual-Lit)

- This combination of a standard front-lit letter with the halo-lit letter is considered flashier and fancier.
- In instances where multiple lighting effects are desired (i.e., yellow illuminated faces with a blue halo effect) this sign type delivers.
- The sides of each character are aluminum, the faces are polycarbonate, and the back of the sign is open to reflect the LED illumination off of the wall.