Reliable Line Marker Signs for Essential Protection

Vulcan's Line Marker Signs are a trusted choice for safeguarding fiber optic and utility lines. As a visible first line of defense, our WARNING signs help protect critical infrastructure by clearly communicating the presence of underground cables and utilities.

Substrate Options for Maximum Durability

Our line marker signs are built from materials designed for durability and clear messaging:

- Aluminum – Lightweight, corrosion-resistant, and strong, aluminum remains a top choice for outdoor durability.
- HDPE – High-density polyethylene offers flexibility and weather resistance for signs in variable climates.
- ACM (Aluminum Composite Material) – A three-layer panel with an aluminum surface bonded to a polyethylene core, providing stability and allowing for digital printing.

Available Sizes and Customization Options

Vulcan's line marker signs are available in various standard sizes to suit different applications, including 12" x 9" and 10" x 14" for rectangular signs, with cable route signs typically in a 12" x 4" format. Custom sizes are also available to meet specific project needs, ensuring versatility for any application.

Specialized Decoration for Lasting Legibility

Effective signage relies on both durable substrates and resilient printing techniques. Each substrate offers unique benefits for different applications:

- Aluminum – Screen-printed with a Thermoset Polyester Ink system, which uses automotive-grade pigments for maximum longevity. This ink is cured at a high temperature to ensure a lasting bond with the aluminum surface.
- HDPE – Low-surface-energy material that requires specific surface treatments to securely bond inks. Only select outdoor inks are compatible with HDPE, ensuring message clarity.
- ACM – Digitally printed for flexibility in design and customization, with a protective clear topcoat to prolong message legibility in outdoor environments.

With Vulcan's Line Marker Signs, clients receive reliable, high-quality signage solutions designed to meet the demanding utility and infrastructure protection requirements.

VULCAN
UTILITY SIGNS

LINE MARKER SIGNS

There are two primary components to a **line marker sign**. The rigid substrate and decoration of each. The selection of the rigid substrate is important based on factors of longevity, use, mounting consideration and the overall size.

The Substrate:

The material used in making outdoor durable signs has continued to evolve over the years. Steel was the main material used until aluminum was developed as a lighter, corrosion resistant and with similar strength. The plastic industry formulated an outdoor durable material, namely HDPE for signs. Recently ACM, Aluminum Composite Material, has become another substrate for use. Each of these have they're on pros and cons as show in the table below.

SUBSTRATE	RIGID	RECYCLABLE	ACCEPTS DECALS OR FILM	SURVIVES DITCH BURNS
Aluminum	1	1	1	1
Aluminum Composite Material ACM	1	4	1	2
HDPE	3	4	4	3

1 = Best; 2 = Good; 3 = Average; 4 = Not recommended

The Decoration:

The decoration of the rigid substrate is just as important as the substrate. If the sign does not "convey a message" then its purpose is no longer being fulfilled. Different substrates have different printing methods that have been proven to endure the outdoor environment. The decoration method of each substrate provides different outdoor message legibility expectations as shown here.

SUBSTRATE DECORATION	LEGIBILITY EXPECTANCY
Aluminum	10 + Years
Aluminum Composite Material - ACM	7-10 Years
High Density Polyethylene - HDPE	5-7 Years

ALUMINUM SUBSTRATE DECORATION: Extensive research and development have been and continues in the challenging problem of providing the decoration that will last many years in an outdoor application. Our R&D continues to prove that a Thermoset Polyester Ink system applied to aluminum provides the best and longest legibility in the outdoors. A Thermoset Polyester system only cures with heat at a minimum of 275ºF. The heat causes the polyester to cross link and bond. This ink system is specially formulated for Vulcan with Automotive grade pigments.

HDPE SUBSTRATE DECORATION: HDPE by nature has a low surface energy which makes the bonding of any ink impossible without some form of surface treatment. The proper selection of the surface treatment is critical to the ink used for bonding. Hence not all outdoor durable inks can be used on HDPE.

ACM SUBSTRATE DECORATION: Aluminum Composite Material, ACM, is a three-layer panel material made of two thin layers of pre-finished aluminum bonded on either side of a polyethylene core. The pre-finished aluminum surface allows for digitally printing the message. Digitally printed signs of ACM require a final coating of specialized clear top coating to extend the life of the message.