Outdoor Graphics Design to Installation

IFAI Expo 2017
Ernest N. Morial Convention Center
New Orleans, LA
8:45 a.m.

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Presented By

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Graphics Everywhere

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Building Wraps


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Building Wraps


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Building Wraps


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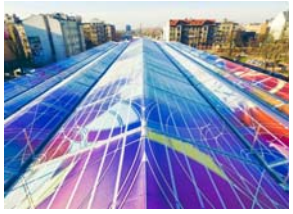
Canopies

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Outdoor Spaces


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Outdoor Spaces


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Outdoor Signage


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Outdoor Signage


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Outdoor Signage


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Overview of Materials

- Direct printing onto woven fabric
- Coated / Uncoated
- Vinyl films
- Urethane films

Overlaminates and Finishing Techniques to Increase Longevity

- Liquid laminates
- Pressure sensitive Films
- Thermal activated films

Liquid Laminates

- Water-based liquid coatings
- Solvent-based liquid coatings
- UV curable liquid coatings

Examples of Coatings

- Solvent-based laminates for water-sensitive inks or media
  - Available in aerosol cans, a spray-gun-ready formulation, and a brush and roll formulation
- UV-curable laminates
  - Must be applied with a UV-roller coater: these laminates will not cure under any other method
  - Durable and versatile

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Application Methods

- Brush and Roll Application
  - With this, we do not recommend bristle brushes. For roll application, you'll get the best results with a 3/16" short-nap roller (not mohair) or a high-density white foam roller. We do not recommend black foam brushes or rollers because they occasionally bleed.
- Spray Application
  - Marabu recommends Husky brand HVLP gravity feed spray gun with a 1.4 mm tip size. The Husky gun is an economical, high quality gun that yields excellent results. If you choose to use a different gun, we still recommend use of a Teflon-coated or stainless steel gun. When using an HVLP gun make sure that you have 45 – 55 pounds of air at the gun.

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Application Methods

- StarLam 1600R
  - Maribu's Roll-to-Roll Liquid
  - ClearShield use on other liquid

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Pressure Sensitive Films

- Formulations
- How to determine compatibility
  - Rigid structures
  - Flexible structures
- Application methods

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Thermal Activated Films

- Typical sign applications
- Canvas applications
- Other application methods
- Urethane vs Vinyl

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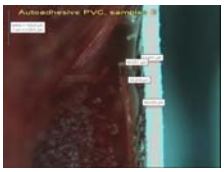
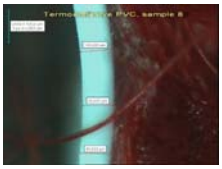
How they work – P/S vs Thermal





Pressure Sensitive
- Always active
- Longer dwell time

- Thermal
- "Dry" to the touch
- Shorter dwell time

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How to Determine Compatibility

- Scope of the project
- Type of ink
- Method of application

Formulation

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Wind Load and Installation Issues for Outdoor Graphics

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Wind Load Overview

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Environmental Effects on Installations

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Open Areas versus Protected Areas

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Calculating Wind Load

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Effective Project Area on Light Poles

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Installations that Spill Wind Load

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WIND FORCE CALCULATOR

Select a **banner size** and adjust the **wind speed** below to see how our banner rods perform and which type is best for you.

The wind speed must range from 0 to 100 MPH

Banner Size

- 30" x 60" (762mm x 1524mm)
- 30" x 94" (762mm x 2388mm)

Wind Speed (mph)

0

Calculations for a banner sized 30" x 60" in. at wind speeds of 0 mph

	17"/16" (20.6mm) Round Rod	Arrow
EPA	0	0
Drag	0	0
Wind Force	0	0
% Reduction	0	0

Wind Force Calculator Information Disclaimer

Consort provides this data for customer convenience. Consort does not assume any liability associated with use of this data by anyone. It is the customer's responsibility to determine to his/her own satisfaction that the structures (light poles, buildings, etc.) are able to withstand the increased wind load generated by the installation of one or more banners of a particular size on that structure using Consort banner brackets. Consort recommends that the pole manufacturer or a structural engineer be consulted in making that determination.

EPA: Effective Projected Area is a value given to outdoor pole-mounted equipment, such as lighting fixtures, signs and banners, based on the sum of the pole and attached fixture(s) surface area and shape, in square feet. For banners mounted with flexible arm brackets the EPA will change (get smaller) with increasing wind loads. A good way to envision the EPA of wind-loaded banners is as the deflected shape of the banner projected onto a flat surface.

https://www.bannerflex.com/resources/wind-force-calculator

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Effect of Wind Slits on Banners

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Mesh Fabrics at Ground Level

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Proper Fastening for Pole Banners

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Wall Mounting Graphics

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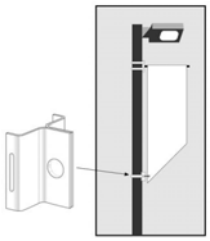
Tie Down to Increase Wind Load



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Sydney's Festive Flag Banners

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Flagtrax Changes Flag Banners from Ground Banners

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wikiHow to Calculate Wind Load

User Reviewed

Four Methods: Wind Load Calculator · Calculating Wind Load Using the Generic Formula · Calculating Wind Load Using the Electronic Industries Association Formula · Calculating Wind Load Using the Uniform Building Code (UBC) '97 Formula · Community Q&A

Wind is a mass of air that moves in a mostly horizontal direction from an area of high pressure to an area with low pressure.[1] High winds can be very destructive because they generate pressure against the surface of a structure. The intensity of this pressure is the wind load. The effect of the wind is dependent upon the size and shape of the structure. Calculating wind load is necessary for the design and construction of safer, more wind-resistant buildings and placement of objects such as antennas on top of buildings.

http://www.wikihow.com/Calculate-Wind-Load

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Wind Loads-Awnings

Awning application—best practices

- Proper rafter/lacing bands
  - Spacing
  - Attachments
- Secure fabric
- Preventing wind whip

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Beyond Wind Load

- Improper rafter spacing
- Guy wires do not support fabric
- No continuous attachment to front bar
- Water will pool
- Cause sagging
- Leakage
- Worse

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Questions?

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Thank you!

FGA is always interested in new and returning voices that are geared towards making programming and events successful.

If you're interested in participating as a speaker/presenter at a workshop or in a webinar, or in membership with IFAI, please contact Christine Gerard, Fabric Graphics Association Division Supervisor.

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