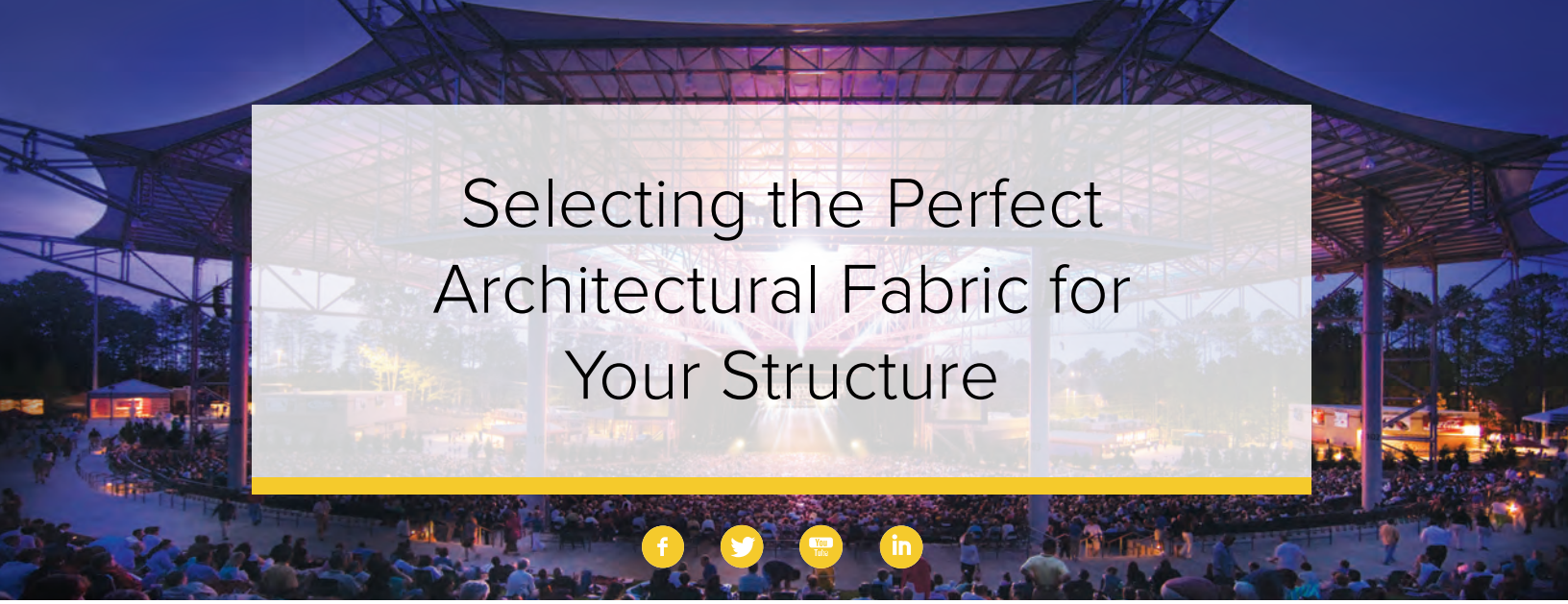

Selecting the Perfect Architectural Fabric for Your Structure

Determining the function of your tension, air or frame structure is the first step toward selecting the perfect architectural fabric for your needs. Once function has been documented, you can begin to map out the physical properties your ideal fabric would possess. However, these attributes fall into two categories - 'musts' and 'wants.'

The 'Musts'

The following attributes are essential when it comes to determining what fabric is the right solution for your tension project.

Strength

In order to determine the strength of a fabric a set of globally accepted, standardized textile tensile tests are performed to reflect on relevant levels of breaking, tear, burst, and stretch / recovery properties.

Mass

Generally, the standards set by TensiNet are used when determining the appropriate mass of a fabric. These standards are globally accepted criteria that is used to categorize PVC coated materials. Through these standards, fabrics are divided into 'types,' which assist structural engineers by providing them with example applications of similarly 'typed' materials.

Durability

No one wants to construct a structure that is likely to fail, especially if people will be regularly occupying the space. To determine the durability of a fabric, a series of specific tests are performed to address the integrity between the materials in PVC coated polyester fabrics. These rigorous tests expose the fabric components to typical conditions that would be seen during normal use. These include:

- **Ultraviolet Radiation**
- **High Heat**
- **Moisture**
- **Extreme Cold**
- **Mildew**
- **Mold/Fungus**
- **Noxious Liquids and Gases**

Safety Compliance

Municipalities around the world use recognized certifications and standards in regards to the safety statistics of building materials. Some standards include:

- **Flame Retardancy**
- **Impact and Debris Resistance**
- **Other Environmental Testing**

It is important to note that regionally specific criteria must be met in order for a fabric to be recognized as a viable building material option.

The 'Wants'

Typically, visual properties are considered the 'wants' of any tension structure project. These are qualities that the owner wants to see in the final product and what will ultimately be the first impression of the structure.

Scale

Scale refers to the actual physical size of a tension structure, including height, weight, width, span, human capacity, etc.

Space

This term is used to quantify the actual cubic volume enclosed and/or affected by the structure. Space refers to both interior and exterior aspects of the structure.

Air / Ambiance

Generally limited to the interior of a structure, these terms refer to the desired effect of the enclosed or partially enclosed area. Some of the main factors include:

- **Light**
- **Color**
- **Sound**
- **Visual Shape**

Visual Weight

Visual weight is a sensory term that usually speaks to the exterior of a structure. This is in regards to how the structure is interacting with its surroundings, such as other buildings or nature, as well as how the size, color, and shape come together to make a cohesive visual statement.

Light

Light is one of the most important, yet most elusive, terms in regards to structure projects. Light refers to both interior and exterior light reflectance, transmission, and the color of both the natural and artificial light.

After determining what 'musts' and 'wants' are essential for your tension structure project, you can begin the fabric selection process. Talk with manufacturers to determine the capabilities of their specific architectural fabrics and use your list as a benchmark. From there, you'll be able to select the architectural fabric that will provide you with the quality you need without compromising the style you desire.

Interested in learning more? ***Contact a Shelter-Rite Architectural Fabrics*** professional to discuss your tension structure needs.

About Shelter-Rite Architectural Fabris by Seaman Corporation

Seaman Corporation, a world leader in the innovation and design of high performance coated fabrics since 1949, manufactures Shelter-Rite architectural fabrics. A vertically integrated company, Seaman Corporation develops proprietary formulations, knits, weaves, and coats fabric in two U.S.–based plants.

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