Trademark SOUNDPROOFING

Acoustic Wall Panel
Fabric Selection Guide

Fabric Memory

Memory refers to the ability of a fabric to retain its manufactured finished state. A very stiff fabric would have too much memory. An example of this would be polyolefin. Plyolefin is a wall covering that people often specify due to its durability. Natural fabrics, such as cotton, would be the exact opposite; they would not have enough memory. So while you are selecting fabric keep in mind that it is possible to have too much memory, as well as not enough.

Good Fabrics

Our standard is a 100% woven polyester panel fabric. There are numerous fabrics available in various colors, patterns and solids that are made of 100% polyester. There are many polyester fabrics that offer a recycled content, which can help with LEED Certification.

Bad Fabrics

Natural fabrics are not recommended due to the fact that they do not contain enough memory and are extremely sensitive to environmental conditions. Think of cotton.... it has absorptive capabilities. Now imagine a panel wrapped with a cotton fabric placed in a room that has a fluctuating temperature, hot and humid one day, drier another. What happens to the fabric? When the climate is humid the fabric absorbs the moisture, causing it to sag and when the environment is drier the fabric will then contract. This kind of activity will cause the fabric to delaminate from the board.

Fabrics with too much memory are not recommended due to the fact that they have a tendency to want to return to a flat state. When placed on panels that are edge wrapped they tend to give a rounded appearance instead of a crisp appearance. The face may also delaminate from the fiberglass during the final stages of production and during installation causing an undesirable finished appearance.

Acoustical Transparency

Acoustical Transparency is necessary for the sound absorbing material to work.

One method of testing fabric acoustical transparency is to blow thru the fabric. If you can blow air through the fabric then noise can pass through to the sound absorbing material.

Backing

Why would an acrylic backer be required?
Materials that are thin or of a mesh weave may require an acrylic backer to prevent adhesive bleed thru. Materials of a looser weave or stretchy content would require an acrylic backer to stabilize them.

A ***light acrylic backing*** is generally acceptable for use on sound panels without affecting the acoustical performance.

A ***heavy acrylic backing*** is not recommended for use on acoustical panels because it does interfere with the acoustical performance by creating a more reflective surface and not allowing the noise to reach the sound absorption material. The heavy backer also makes the fabric stiffer and may affect the appearance of the edges of the panel.

148 Horton Drive, Suite B
Monsey, New York, 10952

Phone: 845.352.3200
Fax: 845.367.4657

www.TMSoundproofing.com

Trademark SOUNDPROOFING

Acoustic Wall Panel
Fabric Testing Policy

When a customer selects a special fabric for use on our products, its is our policy to test the selected material. All materials are not the same and while some may pose no problems during the manufacturing process, many do. The whole purpose of the testing process is to try and head off or resolve any potential issues and help the project progress without any last minute unforeseen problems. Here are some of the things we look for when evaluating and testing material:

1. Material content- The material should not contain any natural fibers or fibers that do not have enough memory to withstand vertical applications.

2. Adhesive Bleed Thru- Some materials are sheer or of a loose weave and allow adhesive to bleed thru to the face of the material.

3. Substrate Bleed Thru- This happens when a material is sheer or of a loose weave and allows the color of the fiberglass to show thru the fabric or changes the color of the material.

4. Memory- This refers to the ability a fabric has to retain its manufactured state. It is possible to have too much and it is also possible to have too little.

5. Acoustical Transparency- This basically means that the fabric will allow noise to reach the acoustical absorber.

6. Fabric suitability for selected mounting method- With some hardware, such as our Rotofast Anchors, the weave and general construction of the material needs to be evaluated.

Good testing results will reflect crisp edges, a smooth face and meet all of the other desired criteria mentioned above. Bad testing results can show some of the following, but are not limited to : rounded edges, delamination, bleed thru (adhesive or substrate), and orange peel appearance, which is a result of the material enhancing the natural appearance of the fiberglass board instead of concealing it.

If we test the submitted material and deem that it is not suitable for the application we will provide you with a submittal sample to view the problems we have encountered. In addition, we will gladly help you select an alternate fabric trying to meet any specified criteria such as color, material content or pattern. Our ultimate goal is to provide you with a top quality product.

Acceptable or Not

Some factors that can influence what is acceptable in the finished product are: lighting, location, application, the amount of labor involved when using the selected material, if the fabric is difficult to work with or requires extra steps during the manufacturing process, this can add to the cost of the finished product due to the extra labor.

148 Horton Drive, Suite B
Monsey, New York, 10952
Phone: 845.352.3200
Fax: 845.367.4657

www.TMSoundproofing.com

Things to Consider During Fabric Selection

Some things to consider during your fabric selection are: cost, lead-time, yield: including yield due to material directionality, material content and the types of fabric being looked at. Here are some facts about the different categories of fabrics that are available:

1. Panel Fabrics: These fabrics have the appropriate fiber content to withstand vertical applications without sagging. They are typically 66" wide. They are typically tested per ASTM E-84 and pass with a Class A or 1 rating.

2. Wall Coverings: These fabrics have fiber contents that make them more durable: however, this tends to make the fabric stiffer because they contain more memory. They also tend to have heavy backers which will interfere with the acoustical performance of the substrate they are applied to. They are typically 54" wide. They are also typically tested per ASTM E-84 and pass with a Class A or 1 rating.

3. Upholstery Fabrics: these fabrics tend to have backers but the type of backer tends to vary. They are also typically 54" wide. They are typically not tested per ASTM E-84.

4. Vinyl's: Vinyl's vary in thickness/weight which has a direct bearing on the hand of the vinyl. They need to have a soft hand in order to be wrapped around the substrate. Vinyl's also need to be perforated to allow the substrate to perform acoustically as expected. They are typically 54" wide. They may be tested per ASTM E-84 and hold a Class A rating.

When a Selection Has Been Made

Once a fabric selection has been made, testing can begin. In order to produce an adequate test sample and submittal samples, we require three yards of material. We will also require information about the fabric being submitted for testing, please be sure to include, fabric supplier, distributor name and contact information, fabric name, style name/number, color name/number, width of material, material content, indicate whether material has a backer and if so, what type of backer, whether material is directional and which direction the pattern should run on the panels (if not already discussed). Fabric suppliers/distributors will typically provide mock-up yardage at no cost to assist with this process when the architect and project name are given.

148 Horton Drive, Suite B
Monsey, New York, 10952

Phone: 845.352.3200
Fax: 845.367.4657

www.TMSoundproofing.com