

Fabrics • Features, Guidelines & Limitations

Features and Advantages of Fabric Facings

- Approved fabrics provide good acoustical transparency for performance
- Fabric can be applied to most panel edge profiles
- Corners can be nicely tailored and finished with approved fabrics
- Nap of standard weight fabrics help make nicely fitting panel joints
- Most “panel fabrics” have Class 1 or A flame spread properties
- Specific fabrics, when applied to AVL Systems’ substrates, provide a composite panel Class A flame spread (less than 25) per ASTM E-84

Properties and Limitations

Of the thousands of fabrics available today, many are not suitable for acoustical product application. All fabrics specified and received are examined by review of the manufacturer’s specifications and recommendations, and by product application and short-term evaluation for obvious limitations that make them unsuitable for use. Any limitations found will be disclosed to enable re-selection by the specifier. Fabrics that are determined as acceptable exhibit, as can best be determined, the following properties and characteristics:

- Acoustical transparency and performance
- Dimensional stability (ASTM D6207)
- Tension and stretch capability within necessary range
- Adhesive compatibility
- No adhesive wet-out
- No adhesive bleed-through
- Adhesion and bond to substrate
- No telegraphing of normal core irregularities
- Color suitability and opacity to prevent core color visibility
- Upholstery characteristics that are without residual memory or bulging
- No “pull lines”, a recent phenomenon, are visible as sags or wrinkles on fabrics under certain lighting conditions. The fabric is in fact flat, but appears otherwise due to the light reflecting unevenly from the tensioned or stretched fibers. Although there is no conclusive determination as to the cause, fabrics containing unspun fibers, extruded & crepe type weaves are all susceptible to this phenomenon. This is particularly true of fabrics with high recycled content.
- Fire retardant treatments are sometimes requested on fabrics and should remain stable in the intended environment. Some solutions when exposed to high humidity or abnormal environmental conditions greater than 80% RH, is drawn to the fabric surface, evaporates and leaves a deposit that leaves a noticeable light stain known as “blooming”. This stain is difficult to remove and may discolor fabric.

Specification Considerations

DIMENSIONAL STABILITY (ASTM D6207): Based on AVL Systems’ experience and successes with various fabrics, we have found that polyester, polyolefin, olefin, modacrylic, and blends using these fibers as a base material are the most stable and yield the best result. Although all choices of fabric should be evaluated for dimensional

stability, fabrics containing silk, nylon and rayon are less likely to remain stable. Backings, whether acrylic, latex or other will not stabilize a fabric that is already physically and dimensionally stable.

CUSTOM PRINTS & PATTERNS: AVL Systems can match patterns and repeating designs, custom prints, artwork, designs, logos, and murals can be matched across abutting panels for an additional charge.

MICRO-PERFORATED FABRICS AND BACKINGS: Fabrics and facings that are micro-perforated, pierced, or percolated will not have increased acoustical performance. Perforations of this type will close or “heal” over time. This process was originally developed to reduce mildew and not to improve acoustics.

Purchase Considerations & Order Requirements

Guilford of Maine continues to lead the industry in producing and stocking fabrics that are highly suitable for acoustical product applications and require little or no evaluation prior to ordering. Most other producers use independent mills to produce their fabrics and lead times can be substantial. Furthermore, these fabrics and backings can vary from submittal samples when manufactured at different mill locations. In the event that fabrics other than Guilford of Maine is selected, it will be necessary to adhere to the following:

- Fabrics must be approved by AVL Systems prior to placement of fabric order. In all cases, evaluations will be completed within 3 business days after receipt of sample fabric from specified company.
- Providing a purchase order has been issued to AVL Systems, there is no charge for fabric evaluation. One linear yard minimum for each type specified must be supplied to AVL Systems for use in this evaluation.
- Any fabric requested to be ordered prior to receipt of manufacturer’s sample for evaluation, or lacking approval by AVL Systems, must be paid for in advance by the customer.
- Any custom fabric order that has “pro forma” terms (all fabric manufacturer’s except for Guilford of Maine) must be paid for in advance by the customer.

All lead times are determined by the availability of goods from the specified vendors, NOT AVL Systems.

Wood • Features, Guidelines & Limitations

Wood is a natural material, with variations in color, texture, and figure. These variations are influenced by the natural growing process and are uncontrollable by the manufacturer. The color of wood within a tree varies between the “sapwood” (the outer layers of the tree that continue to transport sap) which is usually lighter in color, and the “heartwood” (the inner layers in which the cells have become filled with natural deposits). Various species produce different grain patterns (figures), which influence the selection process. There will be variations of grain patterns within any selected species. The manufacturer cannot select solid lumber cuttings within a species by grain and color in the same manner in which veneers may be selected. Therefore, color, texture, and grain variations will occur in the products submitted.