

Flaws and Defects Committee Notes
Fall Meeting, Cincinnati Ohio
November 5, 2003

Tim Posey chaired the Committee of Flaws and Defects in the absence of Stan Friedman. Attached is a list of members present.

We went over the document of Flaws and Defects. Tim will put this in ballot form for voting. We will address rebuttals at that time.

We continued to address the issues on seam allowance and slippage and recommend the following guidelines.

1. Stiches per inch
 - a. Allow 6 inches per inch when sewing leather
 - b. A variance should be allowed of plus or minus 1 stitch per inch.
2. Thread Type – Thread should be medium to heavy weight nylon twist.
3. Seam Slippage
 - a. Seam slippage is not an issue when leather is sewn to leather. The thread is the weakest link.
 - b. ASTM has a method to test for leather tear but not seam slippage.
4. Seam Allowance
 - a. Seam allowance should be ½ inch for leather seams.
 - b. Allow plus or minus a 1/8 inch seam variance.
5. Needle Recommendation – Please consult the SCHMETZ needle equipment guide or similar guideline for needle recommendations when sewing leather.

Overview of the ASTM Stitch Tear Test

Two holes are made ¼ inch apart and 1/8 inch into sample. A heavy metal wire similar to a paperclip is inserted into the sample. A machine measures the pressure needed to tear the sample. This is a tear test not a seam slippage test.

Tour At University of Cincinnati **Leather Research Laboratory Tour**

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LIA's Research Laboratory's Technical Service Program is a unique industry resource unmatched in the U.S. Services are available to hide producers, chemical suppliers, leather tanners, leather product manufacturers, retailers and customers. Program activities include: hide, leather, and leather product defect diagnosis; chemical and physical property evaluation; specification testing; process evaluation; new product development; and environmental testing. In addition, the Laboratory conducts confidential research and development studies on an individual client basis.

Testing services are offered in the following areas:

Chemical

Moisture

Ash

pH

Chromium (total and hexavalent)

Other metals (aluminum, calcium, copper, iron, lead, magnesium, nickel, and sodium)

Vegetable tanning extracts, liquors, leathers

Hide Substance

Kjeldahl nitrogen

Oil and grease extraction

Spew analysis

Stain analysis

Sulfur

Chloride, phosphate, sulfate, sulfide (wet methods)

Leather surface ionic charge

Environmental

- Metals

- Biocides

- Phenols (4AAP, instrumental)

- Sulfide

- Leachability (EP toxicity, TCLP, California WET)

Physical

- Strength (grab, tensile, slot tear, tongue tear, stitch, buckle)

- Elongation

- Abrasion (Taber, U.S. Rubber, Wyzenbeek)

- Flex (Newark, Bally)

- Stiffness

- Compressibility

- Shrinkage Temperature

- Water absorption

- Dynamic water Resistance (Maeser, Dow Corning)

- Water vapor permeability

- Flammability (vertical flame, oxygen index)

- Launderometer

- Color fastness (e.g. Fade Resistance, crock resistance, staining)

- Perspiration resistance

- Finish adhesion

- Finish blocking

Historical and Microbiological

- Microscopic examination (surface and cross-section)

- Staining, micro-incineration

- Defect identification

- Species identification

- Labeling Identification

- Coating thickness determination

- Biological cultures

- Mold growth resistance

Instrumental

- Spectrophotometry (AA, infrared, UV-visible)

- Chromatography (gas, HPLC)

- Additional capability available through the University of Cincinnati

The Laboratory is prepared to test in accordance with ALCA, ASTM, EPA, ISO, WEF, Federal test method standards, and Upholstery Leather Standard Methods. The Laboratory is certified under the U.S. Department of Defense Qualified Laboratory List #18415.

Samples submitted for testing should be sent directly to the Research Laboratory at the address listed above. Each service should be accompanied by a written request, describing in detail the problem being encountered, outlining the exact nature of the service work requested, and authorizing necessary Laboratory work. No work can be performed without this authorization. Samples should be properly identified, of sufficient size to permit necessary testing, and securely packed. Samples should be accompanied by appropriate controls where applicable. A confidential report will be prepared upon completion of the service. All service work is confidential and will not be discussed with any third party without specific permission in writing from the originating party. This restriction also applies to copies of Laboratory service reports. All work is performed on a fee-for-service basis. Billing will take place after the service is completed. Specific price quotations may be obtained by calling the Laboratory at the above number.

Randy Rowles and Kadir Donmez are very knowledgeable and will be glad to answer any questions about testing that we may have. There was discussion about how some tests are misleading and do not always apply. Some tests are listed as product benefits to make them “sound good.” Most tests are only as good as the specifications require. The AFMA was charged by the University Laboratory to dispel some of the myths out there. A Dictionary of Leather Terminology from the University will be incorporated into the AFMA Dictionary. It is very important that we are all using the same terminology when talking about leather.

Overall, the tour was the highlight of the conference. The Laboratory team is dedicating to helping the industry as much as possible. Randy and Kadir are very friendly and encouraged questions and discussion about any leather issue. The University of Cincinnati is a very good resource for all our leather testing needs. Confidentiality was stressed many times throughout the tour. They are very dedicated to helping the leather industries move forward.

The AFMA meetings began with a Power Point presentation by Russ Batson outlining flammability in upholstery. Russ is a lobbyist in Washington DC hired by the AFMA to protect our interests in new legislation. Congress wants to pass new flammability standards quickly to protect consumers in the event of deaths related to fire in upholstery. New foam standards and fabric and leather flammability standards if adopted would be implemented in a matter of months not years as earlier thought. There was discussion concerning the test methods used for flammability and the AFMA recommends a 5-second burn test instead of the 20-second test the government recommends.

After lunch we reported to our task groups. I have been serving on the Flaws and Defects committee and have attached the minutes from our break out session. Some reports are ready for ballot and will be sent to all members for voting when complete. The detailed listings can be seen at the AFMA web-site- AFMA4U.org.

In 2004, the meetings will be held at the Renaissance Center in Charlotte.