



FSTG

Michael Jensen

**FAA POLICY STATEMENT –
CLARIFICATIONS AND ADDITIONS FOR
FUTURE ADVISORY CIRCULAR**

June 7, 2016

Questions of Interpretation

- Since the Policy Statement ([PS-ANM-25.853-01-R2](#)) release, there have been questions regarding the interpretation of the policy.
- Revision 1 and 2 of the Policy clarified a number of those issues.
- A presentation given at the Triennial in Philadelphia in 2013 provided additional clarifications.
- There have been requests for additional Methods of Compliance (MoCs), wider applicability and further clarifications.

PS Clarifications and Additions – Working Plan

- Through the IAMFTWG, the Flammability Standardization Task Group (FSTG) has collected requests that have been assigned to Team Leaders to develop proposed wording and new data and analyses (where required) to clarify and devise new MoCs.
- All changes, data and analyses developed by FSTG will be provided to the FAA Transport Airplane Directorate and EASA for consideration in adding to a proposed AC that will replace the Policy Statement.

PS Clarifications and Additions – Time Frame

- The FSTG will need to complete all input to the FAA and EASA by this fall.
- Meetings are being held monthly to monitor progress.
- Extended meeting time in Kansas City yesterday and tomorrow.
- A report detailing what was provided to the FAA and EASA will be given at the Triennial Conference in Atlantic City in October.

Clarifications and Additions

| PS# | Sub # | Leader | Issue | Company |
|-----|-------|------------------------|---|---------|
| 3 | A | Bart & Steven | Core thickness versus Panel thickness | Zodiac |
| 3 | B | Bart & Steven | Sliding panel thickness range | Zodiac |
| 3 | C | Bart & Steven | Add Millimeter near equivalents | Zodiac |
| 9 | A | Charles Nam | Allow PS 9 and PS 3 to be used together | Boeing |
| 9 | B | Blake Hall | Clarify PS 9 can be used in stack-ups | Boeing |
| 9 | C | Magno Gil/Asfaw Beyene | Ink lettering is insignificant | Boeing |
| 9 | D | Magno Gil/Asfaw Beyene | Use PS 9 for ink coating one entire side | Boeing |
| 9 | E | Michael Miler | Definition of integrally colored | Sekisui |
| 10 | A | Gwen Garman | Change wording to $\leq 1/4"$ (mm) | Boeing |
| 10 | B | Scott Campbell | 1/4 panel or less test data allowed for PS 10 | Zodiac |
| 12 | A | Michael Miler | Add language to cover thermoplastics to PS 12 | Sekisui |
| 13 | A | Gilberto Niitsu | Allow 60 sec VB similarity for faux leather | Embraer |
| 14 | A | Ingo Weichert | Add additional metals to applicability | Airbus |
| 14 | B | Marjan Chini | HR/SM not required for metals with inorganic finishes | Boeing |
| 15 | A | Bart & Steven | Add HR and Sm to powder coating Similar to PS 7 | Zodiac |
| 16 | A | Scott Campbell | Bonded metal same as Embedded Metal | Zodiac |
| 19 | A | Keith Couilliard | Clarify a dust cover is a window | Boeing |
| 20 | A | Michael Jensen | Any PWB tracing certifies any other tracing | Boeing |

Clarifications and Additions

| | | | | |
|-------|---|-------------------|---|----------------|
| 21 | A | Scott Campbell | Bonded Carpet is allowed as a detail (tape & squares) | Zodiac |
| 21 | B | Scott Campbell | Clarify Bonded Detail Definition | Zodiac |
| 21 | C | Scott Campbell | Extend MoC to all bonding | Zodiac |
| 21 | D | Scott Campbell | MOC applies to multiple stacked bonded details | Zodiac |
| 21 | E | Scott Campbell | Test needs to match requirement of Bonded Detail | Zodiac |
| 21 | F | Scott Campbell | Double sided tapes tested at 1 ply | Zodiac |
| 21 | G | Scott Campbell | Double sided tape certified by any of the 4 options | Zodiac |
| 21 | H | Chuck Story | Adhesive plaque can be thinner than 1/4" (Opt. 1) | Magee Plastics |
| 21 | I | Anna Nguyen | Single sided tapes may be certified to option 3 or 4 | Boeing |
| 21 | J | Dan Slaton | 2 ply laminate definition | Boeing |
| 21 | K | Scott Campbell | PS 21 applies to bonded metal as well | Zodiac |
| 21 | L | Glenn Swain | For heat release and smoke, testing a thinner metal substantiates a | Zodiac |
| 21 | M | Gwen Garman | For HR/SM use \leq , not $<$ | Boeing |
| 23/24 | A | Patrick Zimmerman | Decorative over bonded joint compliant by base panel | 3M |
| 24 | A | Patrick Zimmerman | VB - Single ditch certifies multi-ditch | 3M |
| 26 | A | Keith Couilliard | Applicable to metal to - Generalize to all metal to metal bonding | Boeing |
| 26 | B | Keith Couilliard | metal to composite fay seals | Boeing |
| 27 | A | Bart & Steven | Add Powder Coat | Zodiac |
| 27 | B | Gwen Garman | Applicable to $<1/4$ " panels | Boeing |
| 27 | C | Zodiac | 2 layers of DTL certify a single layer of DTL on backside | Zodiac |

Clarifications and Additions

| | | | | |
|-----|----|---------------------------|--|---------------|
| New | 1 | Tom Little | Fastened, non-bonded materials may be tested separately (VB). | Boeing |
| New | 1A | Tom Little | HR/SM for mechanically fastened panels (Panel over Panel) | Boeing |
| New | 2 | Tom Little | Rigid Foam Density (Core), Heat Release & VB | Boeing |
| New | 3 | | Seat Shells - Multi prepreg layers across multi foam thickness and d | TBD |
| New | 4 | Jeff Smith | UL 94 V0 certifies material to 12 second VB | Gulfstream |
| New | 5 | Tom Little | Industry Specs and Same definition | Boeing |
| New | 6 | Dan Slaton | Developing future MOCs - Standard | Boeing |
| New | 7 | Klaus Boesser | Add applicability to 45 Degree BB | Zodiac |
| New | 8 | Heiko Nuessel | Textile Color Similarity - VB only (Maybe (d)) | Lantal |
| New | 9 | Melanie Prince | Testing inorganic (stone) Vertical Burn Only (OSU if single material - | F List |
| New | 10 | Melanie Prince | Wood Veneer Similarity | F List |
| New | 11 | Scott Campbell | Floor Coverings MOC (Separate from PS21) | Zodiac |
| New | 12 | Boeing | Metal Bond Primers and use of PS 14 to test bare metal in lieu of pa | Boeing |
| New | 13 | Hans & Jacques | Effect of Paint Thickness - Thin for thick or Thick for thin? | Mankiewicz |
| New | 14 | Jeff Smith | Additive Manufactured Parts | Gulfstream |
| New | 15 | Scott Campbell | Crushed Core Panel - Restate original Report Definition | Zodiac |
| New | 16 | Grant Joplin/Andrew Olsen | Small Part definition | Boeing |
| New | 17 | Chris Boyer | Low density foam for higher density foam (Flexible) | Standard Aero |
| 1 | 18 | TBD | Add HR for VB to heirachy | TBD |

FSTG SharePoint (hosted by Zodiac)

FSTG2 Welcome Michael Jensen | This Site

Home

View All Site Content

Documents

- General

Lists

- FSTG 2 Members

Discussions

Sites

People and Groups

- Recycle Bin

General

Name

- FSTG2 Item Task Tracking Worksheet
- FSTG_Agenda_16-5-26
- Definitions_AC_Input_2016
- How to Create Alerts in SharePoint

New Policy Statement Items

| Name | Title Description |
|----------|---|
| Item 101 | Fastened, non-bonded materials may be tested separately |
| Item 102 | Rigid Foam Density (Core), Heat Release & VB |
| Item 103 | Seat Shells - Multi prepreg layers across multi foam thickness and density |
| Item 104 | UL 94 V0 certifies material to 12 second VB |
| Item 105 | Industry Specs and Same definition |
| Item 106 | Developing future MOCs - Standard |
| Item 107 | Add applicability to 45 Degree BB |
| Item 108 | Textile Color Similarity - VB only (Maybe (d)) |
| Item 109 | Testing inorganic (stone) Vertical Burn Only (OSU if single material - no bonding) |
| Item 110 | Wood Veneer Similarity |
| Item 111 | Floor Coverings MOC (Separate from PS21) |
| Item 112 | Metal Bond Primers and use of PS 14 to test bare metal in lieu of painted or primed |
| Item 113 | Effect of Paint Thickness - Thin for thick or Thick for thin? |
| Item 114 | Additive Manufactured Parts |
| Item 115 | Crushed Core Panel - Instate original Report Definition |
| Item 116 | Small Part definition |
| Item 117 | Low density foam for higher density foam (Flexible) |

□ Add new document

Existing Policy Statement Items

| Name | Title Description |
|---------|--|
| Item 3 | Thickness Ranges |
| Item 9 | Color of Thermoplastics |
| Item 10 | Face as a Separate Entity |
| Item 12 | Decorative Laminate Orientation |
| Item 13 | Synthetic Leather/Suede |
| Item 14 | Aluminum/Steel/Titanium Parts (excluding powder coating) |
| Item 15 | Powder Coated Metal |
| Item 16 | Embedded Metal Detail |
| Item 19 | Clear Plastic Windows and Signs |
| Item 20 | Printed Wiring Boards |
| Item 21 | Sealed Details |



Announcements

FSTG2 Workshops 5/26/2016 7:46 AM
by Panade Sattayatham
Please contact Michael Jensen (michael.e.jensen@boeing.com) if you plan on attending the **Monday and Wednesday (June 6 and 8)** workshops in Kansas City outside of the FAA IAMFTWG meeting.

So you're headed to KC ... @ 5/26/2016 7:33 AM
by Panade Sattayatham
"So you're headed to KC ... A Primer"
- George

A very comprehensive list of restaurants, getting around in and attractions in Kansas City from the honorable George Danker.

Please note that Akro has a room block at the Kansas City...
Calendar

6/6/2016 5:59 AM FSTG 2 Meeting
Half day pre FSTG 2 meeting before IAMFTWG meeting

6/7/2016 12:00 AM IAMFTWG Meeting

MEETING LOCATION:
The **June 7-8, 2016**, Materials meeting will be held in **Kansas City, Missouri**, at:
The National World War I Museum and Memorial
100 W 26th Street
Kansas City, Missouri 64108
(816) 531-3000
<https://www.theworldwar.org/>

HOTEL INFORMATION:...

6/9/2016 9:00 AM FSTG 2 Meeting
Half day post FSTG 2 meeting after IAMFTWG meeting

6/23/2016 7:00 AM FSTG 2 Status Meeting
This meeting is to introduce the new Flammability

Individual Item View

FSTG2 This List

Home

FSTG2 > Item 20 Disc > Task 20A Any PWB tracing certifies any other tracing

Item 20 Disc

Item 20 Discussion Board

Actions View: Flat

| Posted By | Post |
|--|---|
| Started: 4/22/2016 11:06 AM View Properties Reply | |
|  Panade Sattayatam | Task 20A: Any PWB tracing certifies any other tracing Task 20A: Any PWB tracing certifies any other tracing Owner: Jeff Smith |
| Posted: 5/3/2016 10:14 AM View Properties Reply | |
|  Michael Jensen | The Current FAA Policy Statement wording is: The test coupons must replicate the PWB laminate; however, the copper tracing may be excluded from the coupon configuration. The test must include the PWB material with solder mask and conformal coating, if a conformal coating is used. Testing of the laminate in the thinnest cross section will substantiate other PWBs with thicker constructions. Made of the same laminate and conformal coating. The suggested new wording (first draft) is: The test coupon must replicate the Printed Wiring Board laminate construction; however, either of the following is acceptable; • Metal tracings may be excluded from the tested configuration, • Any metal tracings may be used in the test configuration. The test must include all coatings used in the type design, such as solder mask and conformal coating. Testing of the laminate in the thinnest cross section will substantiate thicker constructions made from the same laminate materials and coatings. |
| Posted: 5/3/2016 10:21 AM View Properties Reply | |
|  Michael Jensen | <hr/> From: Michael Jensen Posted: Tuesday, May 03, 2016 10:14 AM Subject: Task 20A: Any PWB tracing certifies any other tracing The Current FAA Policy Statement wording is: The test coupons must replicate the PWB laminate; however, the copper tracing may be excluded from the coupon configuration. The test must include the PWB material with solder mask and conformal coating, if a conformal coating is used. Testing of the laminate in the thinnest cross section will substantiate other PWBs with thicker constructions. Made of the same laminate and conformal coating. The suggested new wording (first draft) is: The test coupon must replicate the Printed Wiring Board laminate construction; however, either of the following is acceptable; • Metal tracings may be excluded from the tested configuration, • Any metal tracings may be used in the test configuration. The test must include all coatings used in the type design, such as solder mask and conformal coating. Testing of the laminate in the thinnest cross section will substantiate thicker constructions made from the same laminate materials and coatings. |

Get Involved!

- To participate in the SharePoint, contact:
 - panade.sattayatam@zodiac aerospace.com
- Contact team leaders and get on their team.
- Help provide, clarification suggestions, data, test coupons, materials and testing.



Questions?