



BIFMA PC-2020

BIFMA Product Conformance Requirements

April 23, 2020

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Suggestions for the improvement of this Guideline are welcome. The suggestions should be sent to email@bifma.org or BIFMA, 678 Front Avenue NW, Suite 150, Grand Rapids, MI 49504. Suggestions will be reviewed by leaders of the BIFMA Engineering Committee.

BUSINESS + INSTITUTIONAL
FURNITURE MANUFACTURERS
ASSOCIATION

678 Front Avenue NW, Suite 150
Grand Rapids MI 49504-5368

Foreword and Acknowledgements

The Business and Institutional Furniture Manufacturers Association (BIFMA) would like to thank the following BIFMA Engineering Subcommittee Chairs and Vice-Chairs for their leadership in the development (2018) and revision of this document:

Melissa DuBuis	Engineering Committee Chair Panels Subcommittee Chair Seating Subcommittee Chair	Steelcase
John Norton	Engineering Committee Vice-Chair International Subcommittee Chair	Herman Miller
Desmond Noteboom	Panels Subcommittee Vice-Chair	Haworth
John Knust	Seating Subcommittee Chair	National Office Furniture
Tom Dykstra	Files/Storage Subcommittee Chair Flammability Subcommittee Vice-Chair	Haworth
John Shank	Furniture Emissions Subcommittee Vice-Chair	Kimball
Jerry Nichols	Desk/Table Subcommittee Chair	Versteel
Randy Carter	Furniture Emissions Subcommittee Chair Building Codes Subcommittee Chair	Steelcase
Jeff Musculus	International Subcommittee Vice-Chair Desk/Table Subcommittee Chair	Steelcase
Casey VanWinkle	Files/Storage Subcommittee Vice-Chair	Kimball
Lucy Hart	Ergonomics Subcommittee Chair	ergoCentric
Teresa Bellingar	Ergonomics Subcommittee Vice-Chair	Haworth
Robert Hupe	Flammability Subcommittee Chair	Virco

In addition, several members of the BIFMA Board of Directors were active in setting the direction for this document including BIFMA General Counsel. This document was first introduced in May of 2018. The revisions to this document are to align with the proposed BIFMA Compliant Program.

Changes from 2018 include:

- Adding a definition for “BIFMA Compliant” (3.3)
- Removed reference (was 4.5) BIFMA Website Standards FAQ “Testing to Revised ANSI/BIFMA Mechanical Standards” as it is no longer on the website
- Added clarifications to “most recent version of a standard” in 6.2. Added 6.2.1, 6.2.2 and 6.2.3.
- Added details regarding ISO 17025 labs in 6.3
- Added information regarding percentiles and CMD to section 7 Ergonomics
- Added reference to BIFMA Compliant in the last sentences of 8.2 and 8.3
- Minor editorial throughout the document

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1. Purpose

The purpose of this document is to provide the minimum requirements for assessing a product to BIFMA standards and making claims or statements of conformance to those standards. Companies shall follow these requirements when making claims or statements of conformance to BIFMA standards. Customers who buy products that are declared by an organization to conform to BIFMA standards should be confident that any individual product they purchase would pass the appropriate BIFMA tests.

2. Scope

This document applies to any product that has been declared as being in conformance with ANSI/BIFMA or BIFMA mechanical performance standards. General comments are provided for the BIFMA Ergonomics Guideline.

3. Definitions

3.1 ANSI (American National Standards Institute): The Institute oversees the creation, promulgation and use of thousands of norms and standards that directly impact businesses in nearly every sector. ANSI is also actively engaged in accreditation - assessing the competence of organizations determining conformance to standards

3.2 BIFMA (Business and Institutional Furniture Manufacturer's Association): The commercial furniture industry's Trade Association. BIFMA gathers and reports on industry statistics, takes an advocacy position on issues (product and business regulations, business policy, legal matters, etc.) that have broad industry impact/benefit and develops and promulgates minimum industry safety and performance standards for office and institutional furnishings. BIFMA is an ANSI-accredited standards developer and many BIFMA standards are developed and approved through the ANSI process and bear the "ANSI/BIFMA" designation as part of the title of most standards.

3.3 BIFMA Compliant: A BIFMA sponsored product verification program and trademarked name to show conformance to the applicable BIFMA standard, contractual agreement, and this document. The program permits use of a website registry and compliant logo in consideration for meeting the contractual requirements and a fee.

3.4 Conformance: The state of having the appropriate procedures, programs and processes in place to ensure that any given group of products (product-offering) meet the minimum performance requirements defined by this document. Conformance is often referred to as "compliant" or "compliance".

3.5 Conformity Assessment: The process for demonstrating that products meet standards, regulations, guidelines and other specifications necessary to allow statements of product compliance.

3.6 GSA (General Services Administration): US Federal Government Agency responsible for establishing purchasing policies and requirements pertaining to the procurement of products within Government facilities.

3.7 Testing Program: The process of planning, procuring, and performing the testing required for conformance.

4. References

- 4.1 BIFMA standards: <http://www.bifma.org/?page=standardsoverview>
- 4.2 ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories
- 4.3 ISO/IEC 17050-1 Conformity assessment – Supplier’s declaration of conformity – Part 1: General requirements
- 4.4 ISO/IEC 17067 Conformity assessment – Fundamentals of product certification and guidelines for product certification schemes
- 4.5 BIFMA Website Standards FAQ “Worst-Case Testing”
- 4.6 BIFMA Website Standards FAQ “Loss of Serviceability Guideline”

5. Background and Assumptions

5.1 BIFMA Conformance

Many customers seek or require conformance to BIFMA standards as part of requests for proposals (RFP), bid packages, and/or as a contractual requirement associated with their purchase (GSA, for example).

Historically, it has been left up to individual organizations, or in some cases, independent test laboratories or certification agencies, to determine when a product (or product line) complies with a standard based on the testing requirements given in the standard.

5.2 Customer Requirements

Some customers will have requirements regarding which standards apply to specific product types, or minimum age of test reports or time windows for "recertifying" when a revised standard is issued (or both), but generally do not specify exact conformance requirements.

5.3 Test Plan Creation

Proving conformance requires testing. Test plans should be determined by experienced personnel with engineering and/or testing experience. The general tenet of any testing program is that upon successful completion, it is expected that any product within the product line would pass the required tests.

5.3.1 Worst Case Testing

In determining a test plan, it is typical that "worst-case" products are tested that are representative of the full offering. This is common practice as it is impractical to expect that every product type, option, finish type, textile, etc., be tested. BIFMA includes worst-case guidelines in each standard that are helpful in test planning. In general, worst-case products are the largest product (have the greatest load-bearing capability, have the greatest loading moments, and/or have the greatest spans between support structures or provide the greatest tipping potential). However, the largest product may have additional support structures, reinforcement or "footprint" which make them more robust, so a smaller product may be "worst-case". Regardless of the guidance given, good engineering judgment must

be applied to making these determinations. This judgment must consider the design and materials used in the products, the manufacturing processes and variations, quality control measures applied, etc. Often several models must be tested to ensure all worst-case scenarios are evaluated. For example, to demonstrate compliance to the Arm Strength test method, a seating product with both fixed arm and adjustable arm option(s) would need to have both arm types tested to prove compliance.

5.3.2 Samples required

BIFMA standards do not require multiple samples or indicate test reliability. When creating test plans, a single product (test sample) may be used for multiple tests. This is acceptable, but not required. For durability tests, especially, it is common practice to utilize a single product through a sequence of individual tests; such test sequences are often performed until the product does not meet the acceptance levels of a given a test. If this occurs the failing test result shall be disregarded and that test rerun using a new test sample before continuing the test sequence. For example, if a product is found not to meet the requirement in test 9 of 12, a new sample can be tested to assure conformance to test 9 before completing the test sequence 10-12 on the new sample.

In many cases, static proof load testing may cause damage that would impact the outcome of subsequent tests and that sample may not be useable for further testing.

5.3.3 Testing Frequency

Even if no changes are made to the product or the reference standard, testing should be repeated on a regular basis to confirm ongoing conformance. The frequency of testing depends on volume of product produced, quality and manufacturing controls in place to assure consistent product performance, regulatory requirements, customer complaint and warranty history, among other factors.

5.4 Process Control

An organization shall have procedures/processes in place to ensure that:

- formal records exist to support declarations of conformance
- quality systems (procedures and instructions) are in place to ensure that product, material, dimensional and/or supplier changes are controlled in a manner that reasonably assures ongoing compliance to product requirements
- manufacturing facilities follow documented processes (utilization of ISO 9001 Quality Management System requirements is one acceptable method)

Organizations who have reason to believe their product or process is not resulting in consistent compliant outcomes shall take additional steps beyond the scope of this document to regain confidence.

6. Product Conformance Requirements

A declaration of conformance to ANSI/BIFMA standards or guidelines assures that a product line has had representative products tested/evaluated and has been found to meet all the applicable requirements of the standard.

Any product for which a manufacturer makes a BIFMA conformance declaration shall:

- 6.1 Comply with this Product Conformance Requirements document.
- 6.2 Meet the most recent version of the applicable BIFMA standard for that product line. If the most recent version is less than 3 years old, it is acceptable to meet the prior version.
 - 6.2.1 The most recent version of a reaffirmed standard is the date prior to the parenthesis. For example, the year 2013 is the most recent version of hypothetical standard ANSI/BIFMA X5.X-2013(R2018).
 - 6.2.2 If a particular test requirement had no changes in a revision, then it is not necessary to retest products to that particular test. To claim compliance to a new edition, it is only necessary to test to those tests that were revised. Compliance with the current edition of a standard may be accomplished by combining test results from the current revision with test results of unchanged tests to one previous edition or reaffirmation of the standard.
 - 6.2.3 Data to support continued conformance claims shall be no older than ten years (See 6.9).
- 6.3 Be tested in an ISO 17025 accredited lab that includes the applicable ANSI/BIFMA standards in its scope of accreditation. A third-party Accreditation Body (AB) attests to technical competence within a laboratory in addition to its adherence and operation under a documented quality system, specific to a Scope of Accreditation. In order for accreditation bodies to recognize each other's accreditations, the International Laboratory Accreditation Cooperation (ILAC) worked to establish methods of evaluating ABs. The first-party or third-party lab shall have been accredited by an AB that is an ILAC Multilateral Recognition Arrangement (MRA) signatory organization.

In the U.S. there are several, multidisciplinary ABs that serve the laboratory community. These ILAC MRA signatory ABs carry identical acceptance across the globe. It does not matter which ILA MRA signatory AB is utilized for accreditation. The MRA arrangement was designed with equal weight across all countries. For more information see: <https://ilac.org/ilac-mra-and-signatories>.

The entity that makes a conformance claim shall:

- 6.4 Ensure all worst-case products are tested.
 - 6.4.1 For New Products or Products Undergoing First-time Conformance Testing: Perform each applicable test method.
 - 6.4.2 For Changes to Existing Products: At a minimum, perform the test methods of the referenced standard that would reasonably assess the change.

- 6.5 Have product tested that is representative of standard production products (manufactured by standard production processes and materials).
- Note:** For products requiring assembly by the purchaser or end user, assembly instructions shall be available specifying assembly requirements, configuration requirements and/or any applicable use instructions or warnings. The testing entity shall adhere to these instructions in assembling test products and/or in determining test configurations.
- 6.6 Address any failures by first analyzing and assessing the failure (see 5.3.2 for testing guidance).
- 6.6.1 If the assessment concludes the test was invalid because of faulty test setup or execution of the test, or other correctable assignable cause, the test shall be repeated.
- 6.6.2 If the assessment concludes the underlying product and processes are fully reliable and the failure was likely due to a sample anomaly, a minimum of two additional samples shall be tested and both must pass without exception. An additional failure likely means the product/processes are not fully reliable and the product design and/or processes need to be revised per 6.6.3.
- 6.6.3 If the assessment concludes the failure was due to a product issue, the product or process shall be modified. These modifications should be based on, engineering and production expertise and judgment. Testing is required to verify the modified product conforms with the applicable ANSI/BIFMA standards.
- 6.7 Determine when a change to a product requires retesting to assure continuing conformance.
- 6.7.1 Whenever changes in materials, constructions, sizes, fasteners, adhesives and/or processing occur (includes changing suppliers), the responsible entity ("Licensee" for those in the BIFMA Compliant Program) shall determine whether retesting is needed and which tests must be performed.
- 6.7.2 Upon successful validation of the product's performance, the respective declaration of conformance can be updated.
- 6.8 Determine when retesting is required due to a revised standard.
- 6.8.1 When a standard that affects existing declarations of conformance is revised, a determination of the conformance status for the affected products shall be made.
- 6.8.2 Confirmation of the conformance statement shall be completed after publication of revised standards, not to exceed 3 years. (See also 6.2)
- 6.8.3 Upon successful validation of the product's performance, the conformity declaration can be updated.
- 6.9 Conduct routine testing at documented intervals to assure ongoing conformance to the reference standard. A test interval of 5 years is recommended, but it could be longer or shorter depending on manufacturing process controls, customer complaints, standard revision cycle etc. (See 6.2)
- 6.10 Any organization claiming compliance shall maintain test reports to support declarations of conformance.

7. Conformity Assessments for BIFMA Ergonomic Specifications (not part of the BIFMA Compliant Program)

The BIFMA Ergonomics Guideline contains recommendations for dimensions and adjustment ranges for work chairs and work surfaces intended for computer use. For the most part, the dimensions and ranges are derived from the relevant 5th percentile female through the 95th percentile male body dimensions. Conformance of work chairs and work surfaces to the BIFMA ergonomics specifications is to the current BIFMA Guideline (ref. BIFMA G1-2013 as of April 2020).

Declarations of Conformance for work chairs shall be based on the product measurements as measured with a Chair Measuring Device (CMD) or other tools as directed by the current BIFMA Guideline (ref. BIFMA G1-2013 as of April 2020).

Due to the unique complexity of the seating ergonomics considerations, especially relative to sizes and adjustments, declarations of conformance of the work chair seat height to BIFMA G1 may be made based on a chair (series) with a combination of height adjustable mechanisms. In this case, declarations of conformance shall be based on the product's measured dimensions and adjustment ranges. Declarations of conformance are not meant to indicate any given (individual) product will meet all dimensional ranges, but rather that with proper specification, one or more models in the same product line are available to satisfy the dimensions given in the specification. Declarations of conformance should contain appropriate caveats to avoid misunderstandings of product performance.

8. General

- 8.1 Membership in the BIFMA organization is independent from product conformance. BIFMA membership does not guarantee conformance to the BIFMA standard and does not automatically confer the right to declare conformance. BIFMA and non-BIFMA members may claim conformance for a particular product if they comply with these requirements and their product complies with the applicable BIFMA standard.
- 8.2 BIFMA does not test products nor does BIFMA track or monitor test conformance except for those brands which participate in the BIFMA Compliant Program. Manufacturers shall not state, "BIFMA Approved", "BIFMA Certified", or "BIFMA Tested" or any other words alluding to BIFMA approval in conformance claims. Licensees which participate in the BIFMA Compliant Program are allowed specific conformance statements.
- 8.3 The BIFMA logo is not intended to accompany conformance claims and shall not be used. Licensees that participate in the BIFMA Compliant Program may use the BIFMA Compliant logo (mark).
- 8.4 BIFMA does not recommend specific testing laboratories to use when making conformance claims, but maintains a list of ISO 17025 accredited Test Labs in its database (beginning June 1, 2020).
- 8.5 If a product meets all applicable requirements, then the responsible entity ("Licensee" for those in the BIFMA Compliant Program) may issue a declaration of conformance, which must include the applicable standard and revision year. One example conformance statement is "*Meets ANSI/BIFMA X5.1-2017*".

- 8.6 In the case of any discrepancy between this document and the referenced standard, the referenced standard shall prevail.

9. Disclaimers

- 9.1 BIFMA is not an ANSI accredited product certification body. As stated above, BIFMA does not certify compliance with BIFMA standards. BIFMA is not liable for, and has no duty or obligation to verify, confirm or otherwise investigate, any claims of product conformance made by any manufacturer.
- 9.2 The BIFMA Product Conformance Requirements and BIFMA standards (collectively, “Requirements and Standards”) consist of voluntary guidelines and standards. The user is solely responsible for determining compliance with the Requirements and Standards and shall be solely responsible for any claims of conformance. By making use of any information in the Requirements and Standards, the user agrees that in no event shall BIFMA or any of its representatives be liable to the user, the user’s representatives, or the end-user of the product for any damages, including without limitation for consequential, incidental, indirect, special, exemplary, punitive or enhanced damages, lost profits, diminution in value, arising out of or relating to, and/or in connection with any use of the Requirements and Standards or any claims of conformance thereto.
- 9.3 The Requirements and Standards are provided for informational purposes. It is the user’s responsibility to evaluate and independently determine whether the Requirements and Standards are appropriate for a particular product.
- 9.4 No express or implied warranties of any type, including for example implied warranties of merchantability or fitness for a particular purpose, are made with respect to the information, or any use of the information, in these Requirements and Standards.