Certifications and Testing

MARCO
Environments for Learning

Apex Series & MG1100 Series Seating

- Meets or exceeds ANSI/BIFMA X6.1-2012 Testing
- Assembled in the USA

Apex Series Desks and Tables, MG2200 Series Tables, Instructor Stations and Café Tables

- GREENGUARD GOLD certified
- Tabletops made in the USA
- Instructor Stations are made in the USA

Lounge Furniture

- Meets or exceeds California Fire Code Tech Bulletin 117, section E
- Federal Standard A-A-2950
- NFPA 701 Small Scale
- NFPA 260
- UFAC Fabric, Class1
- Made in the USA

Mobile Casegoods, Band-Stor Collection and 3500 Series Bookcases

- GREENGUARD GOLD certified
- Made in the USA

UL GREENGUARD PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818 GOLD

GREENGUARD Gold Certification (formerly known as GREENGUARD Children & Schools Certification) offers stricter certification criteria, considers safety factors to account for sensitive individuals (such as children and the elderly), and ensures that a product is acceptable for use in environments such as schools and healthcare facilities. It is referenced by both The Collaborative for High Performance Schools (CHPS) and the Leadership in Energy and Environmental Design (LEED) Building Rating System.

CHPS COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS
Better buildings. Better students.

LEED — LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN

BIFMA
BUSINESS + INSTITUTIONAL FURNITURE MANUFACTURERS ASSOCIATION

BIFMA is the trade association for business and institutional furniture manufacturers. Since 1973, BIFMA has been the voice of the commercial furniture industry. BIFMA sponsors the development of safety and performance standards, provides industry statistics and forecasts, advocates for regulatory conditions that foster value and innovation, and serves as a forum for member cooperation and collaboration.

The American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system. Founded in 1918, the Institute works in close collaboration with stakeholders from industry and government to identify and develop standards and conformance–based solutions to national and global priorities.

ANSI
American National Standards Institute

ANSI/BIFMA X6.1-2012 Educational Seating Description

American National Standard For Office and Institutional Furnishings-Educational Seating-Tests Includes: Scope, Definitions, General Sections and Tests for Stability, Backrest Strength, Backrest Durability, Drop Test, Seat Load, Seat Durability, Arm Strength, Arm Durability, Caster Tests, Leg Strength, Swivel Tetst, Tablet Arm Tests, Chair Desk and Convertible Bench Load-Ease, and Loading of Storage Hooks.

Scope

This standard is intended to provide manufacturers, specifiers, and users with a common basis for evaluating the safety, durability, and structural adequacy of Educational Seating, including units with integrated desk or table surfaces. The tests in this standard are intended to evaluate seating for students in pre-school, elementary, middle school, high school, adult education, trade school, and college environments. These tests are not intended to evaluate products used in living/dorm environments. The educational seating products covered by this standard are normally used in schools and colleges and include those typically referred to as chairs, stacking chairs, tablet-arm chairs, chair-desks, stools, and convertible bench/tables. Seating products that are anchored to the building floor or structure and bleachers are not specifically addressed in this standard.

Chairs with tilting seats and/or backs such as executive/management chairs, task/secretarial/teacher chairs, side/guest chairs may be used in educational environments, but these products are covered by ANSI/BIFMA X5.1 General-Purpose Office Chairs - Tests (designated within that standard as Type I and II). Similarly, items such as lounge seating may also be used in the educational environment; however, these are covered by ANSI/BIFMA X5.4 Lounge Seating - Tests. Mobile cafeteria tables with attached seating are covered by UL 2040 "Folding Rollaway Tables". Where a product may be covered by more than one ANSI/BIFMA standard, the manufacturer shall determine which standard provides most appropriate test conditions. Where a product is intended for use outside of the educational and related institutional environments, it is the responsibility of the user of this standard to determine if it is suitable for use in such evaluations.

Tests in this standard were developed considering the weight ranges based on age (not grade level) for the size categories. These weights were taken from CAESAR and/or NHANES as appropriate. Where appropriate, the National Health and Nutrition Examination Survey (NHANES) 2011-2014 study was used in the development of the tests (see Table 2). This standard also considered the occasional use of the smaller (Category A and B) products by adults. The tests were developed with an estimated product life of ten years based on estimates for usage as determined by the manufacturers' experience and research.

In general, seating was estimated to be used 6.5 to 8 hours/day and 170-180 days per year for learning environments and other common space environments and 2 to 4 hours/day for convertible bench tables. Product life will be affected by user size/weight, daily hours of use, product use, care and maintenance, environment, and other factors, and, as such, product compliance to this standard does not necessarily guarantee a ten-year product life. Actual life of the product may be more or less than ten years depending on the aforementioned factors.

This standard describes the means of evaluating Educational Seating, independent of construction materials, manufacturing processes, mechanical designs or aesthetic designs. This standard does not address flammability, surface material durability, cushioning materials, product emissions, lead content, or ergonomic considerations; these properties may be covered by other standards/regulatory documents.

The standard defines specific tests, the laboratory equipment that may be used, the conditions of tests, and the minimum acceptance levels to be used in evaluating educational seating. The acceptance levels given in this standard are based on the actual field use and test experience of BIFMA International members.

The tests in this standard are intended to assess the performance of new products only. They are not intended to assess a product that has been in use.

ISO 17025 requirements for measurement uncertainty do not apply to this standard.

ANSI/BIFMA X5.9-2012 Storage Units Description

American National Standard For Office Furnishings-Storage Units-Tests Includes Scope, Definitions, General Sections, and Tests for: Unit Strength, Leg/Glide Assembly Strength, Racking Resistance, Vertical Load Durability, Disengagement, Stability, Storage Unit Drop, Movement Durability for Mobile Storage Units, Rebound, Out Stop, Lock, Extendible Element Cycle, Interlock Strength, Doors, Clothes Rails Static Loading, Swivel Cycle for TV/Video Display Terminal Surfaces, Pull Force, Front Stability Loading Pad and Front Stability Loading Fixture.

Scope

This standard is intended to provide a common basis for evaluating the safety, durability and structural performance of storage units. It provides test methods and performance requirements for freestanding, mobile, and wall-mounted storage units. Where a product may be covered by more than one ANSI/BIFMA standard, the manufacturer shall determine which standard provides most appropriate test conditions. Vertical files shall only be tested under X5.3 Vertical Files - Tests. Where a product is intended for use outside of the commercial office and related institutional environments, it is the responsibility of the user of this standard to determine if it is suitable for use in such evaluations. Note: Commercial product naming conventions may cause confusion regarding the applicability of this and other BIFMA standards. For example, a "credenza" is typically defined and tested in the BIFMA X5.5 Desk standard, however, some configurations of "credenzas" will appear to be storage products within the definition of this standard and may be appropriately tested by this standard. The manufacturer shall determine which standard provides most appropriate test conditions.

This standard specifies acceptance levels to help ensure reasonable safety and performance independent of construction materials, manufacturing processes, mechanical designs, or aesthetic designs. These tests are not intended to assess a product that has been in use.

The tests were developed with an estimated product life of ten years based on a single-shift usage. Product life will be affected by product use, care and maintenance, environment, and other factors: product compliance to this standard does not necessarily guarantee a ten-year product life. Products may perform longer than ten years with appropriate use and care.

The acceptance levels herein are based on the actual field and test experience of BIFMA International members.

ISO 17025 requirements for measurement uncertainty do not apply to this standard.

ANSI/BIFMA X5.5-2014 Desk Products Description

American National Standard For Office Furnishings-Desk Products-Tests Includes: Scope, Definitions, General Sections, and Tests for: Top Loading, Load Ease, Lock Mechanism, Extendible Element or Roll-Out Shelf Cycle, Out Stop, Rebound, Racking, Leg Strength, Horizontal and Vertical Adjustment, Stability, Cycle Testing for Receding Doors, Interlock, Drop Test for Receding Door, Unit Drop.

Scope

This standard provides a common basis for evaluating the safety, durability and structural performance of desk/table products intended for use in commercial office and related institutional environments such as educational environments. It provides test methods and performance requirements for desk/table products. Where a product may be covered by more than one ANSI/BIFMA standard, the manufacturer shall determine which standard provides the most appropriate test conditions. Where a product is intended for use outside of the commercial office and related institutional environments, it is the responsibility of the user of this standard to determine if it is suitable for use in such evaluations.

Note: Commercial product naming conventions may cause confusion regarding the applicability of this and other BIFMA standards. For example, a "credenza" is typically defined and tested in the BIFMA X5.5 Desk standard, however, some configurations of "credenzas" will appear to be storage products within the definition of this standard and may be appropriately tested by X5.9 Storage Units - Tests standard. The manufacturer shall determine which standard provides the most appropriate test conditions.

This standard specifies acceptance levels to help ensure reasonable safety and performance independent of construction materials, manufacturing processes, mechanical designs, or aesthetic designs. These tests are not intended to assess a product that has been in use. The acceptance levels herein are based on the actual field and test experience of BIFMA members.

The tests were developed with an estimated product life of ten years based on a single-shift usage. Product life will be affected by product use, care and maintenance, environment, and other factors. Product compliance to this standard does not necessarily guarantee a ten-year product life. Products may perform longer than ten years with appropriate use and care.

ISO 17025 requirements for reporting uncertainty do not apply when determining conformance to this standard.

ANSI/BIFMA X5.4-2014 Lounge Seating Description

American National Standard For Office Furnishings-Lounge Seating-Tests Includes: Scope, Definitions, General Sections, and Tests for: Back Strength/Durability, Arm Strength/Durability, Seating Impact, Seat Drop, Structural Durability, Unit Base, Leg Strength, Unit Drop, Caster/Base Durability, Swivel Cycling, Tilt Mechanism, and Unit Stability.

Scope

This standard is intended to provide manufacturers, specifiers, and users with a common basis for evaluating the safety, durability, and structural adequacy of business and institutional lounge and public seating.

Lounge and public seating is normally used in indoor public spaces such as waiting, reception, or gathering areas. Lounge and public seating includes products with single seat units, units with multiple seating positions within one unit or ganged seating units. Lounge and public seating may be restrained from moving by attaching to the building structure or freestanding. Lounge and public seating products are generally not adjustable for personal use. This standard does not address general-purpose or task-oriented office chairs, or seating used for stadiums, auditoriums, lecture rooms, airports/train stations and similar high-use public seating areas.

Where a product may be covered by more than one ANSI/BIFMA standard, the manufacturer shall determine which standard provides most appropriate test conditions. Where a product is intended for use outside of the commercial office and related institutional environments, it is the responsibility of the user of this standard to determine if it is suitable for use in such evaluations.

This standard specifies tests and acceptance levels to help ensure reasonable safety and performance independent of construction materials, manufacturing processes, mechanical designs, or aesthetic designs. This standard does not address flammability, surface material durability, cushioning materials, product emissions, or ergonomic considerations.

The acceptance levels herein are based on the actual field and test experience of BIFMA International members. Where appropriate, the CAESAR anthropometric database (2002 report), which indicates the 95th percentile male weighs 253 pounds, was used in the development of the tests. The tests were developed with an estimated product life of ten years based on continuous single-shift usage. Product life will be affected by user size/weight, product use, care and maintenance, environment, and other factors, and, as such, product compliance to this standard does not necessarily guarantee a ten-year product life. Products may perform longer than 10 years with appropriate use and care. This standard may not apply to seating for persons in medically compromised conditions that are often found in certain health care environments, such as physical therapy and weight loss clinics. These environments may require specific product designs that may not be adequately covered by the requirements of this standard.

The tests in this standard are intended to assess the performance of new products only. They are not intended to assess a product that has been in use.

ISO 17025 requirements for reporting uncertainty do not apply when determining conformance to this standard.

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