



Designation: F1988 – 99 (Reapproved 2020)

Standard Performance Requirements for Plastic Chaise Lounges, With or Without Moving Arms, With Adjustable Backs, for Outdoor Use¹

This standard is issued under the fixed designation F1988; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These performance requirements establish nationally recognized performance requirements for Class A (residential) and Class B (nonresidential) plastic chaise lounges, with or without moving arms, with adjustable backs, intended for outdoor use.

1.2 The performance requirements are not applicable to upholstered chairs, or other types of furniture.

1.3 These performance requirements cover the performance of the product regarding aspects of outdoor weathering, impact, static load for seat and back, and arm testing.

1.4 Products may be manufactured from recycled plastics as long as the performance requirements are met.

1.5 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

D638 Test Method for Tensile Properties of Plastics

¹ These performance requirements are under the jurisdiction of ASTM Committee F15 on Consumer Products and are the direct responsibility of Subcommittee F15.33 on Outdoor Plastic Lawn Furniture.

Current edition approved July 1, 2020. Published July 2020. Originally approved in 1999. Last previous edition approved in 2014 as F1988 – 99 (2014). DOI: 10.1520/F1988-99R20.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

D2565 Practice for Xenon-Arc Exposure of Plastics Intended for Outdoor Applications

D4329 Practice for Fluorescent Ultraviolet (UV) Lamp Apparatus Exposure of Plastics

G23 Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials (Withdrawn 2000)³

3. Terminology

3.1 Definitions:

3.1.1 *plastic chaise lounges with adjustable backs, n*—for the purposes of these requirements, a molded, upright piece of furniture with arms, intended for seating one person, having a seat height not less than 9 in. (229 mm) and not greater than 15 in. (381 mm) with the seat and back in the most upright position; having a seat width not less than 22 in. (559 mm) and not greater than 27 in. (686 mm); and having an overall length not less than 70 in. (1778 mm) and not greater than 78 in. (1981 mm) (see Fig. 1).

3.1.1.1 *Discussion*—These requirements are applicable to folding plastic chaise lounges with adjustable backs (see Fig. 2), non-folding plastic chaise lounges with adjustable backs (see Fig. 3), and solid stacking plastic chaise lounges with adjustable backs (see Fig. 4).

3.1.1.2 *Discussion*—Class A (residential) plastic chaise lounges are intended for outdoor use by the customer around the house.

3.1.1.3 *Discussion*—Class B (nonresidential) plastic chaise lounges are intended for outdoor use by the customer in all other areas, including those defined as Class A.

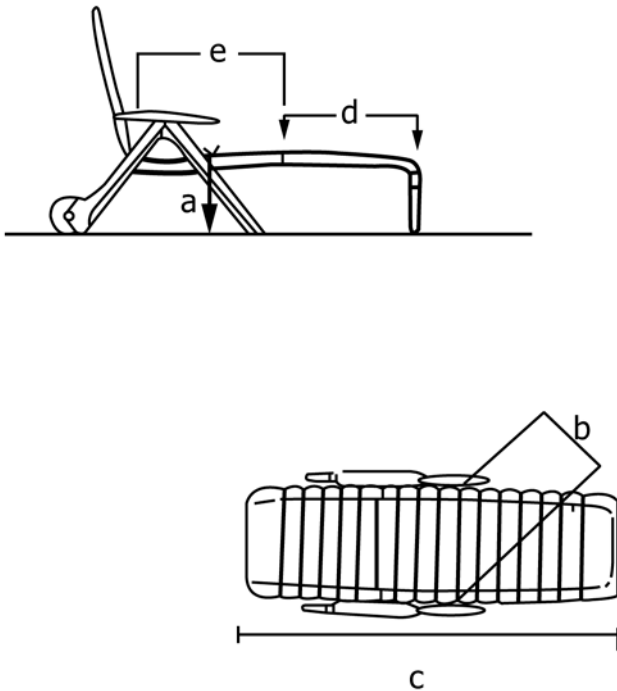
4. Significance and Use

4.1 Tests and criteria as outlined determine the overall usability and stability of chairs in an environment simulating the conditions of use.

4.2 Tests simulate two types of surfaces:

4.2.1 Smooth surfaces such as linoleum, wet pool decks, etc. The glass testing base (see Fig. 5) is used to simulate this surface.

³ The last approved version of this historical standard is referenced on www.astm.org.



NOTE 1—

a = seat height with the chaise lounge seat and back in the most upright position,
 b = seat width,
 c = overall length,
 d = the geometric center is at the center of these points and sides of leg rest, and
 e = the geometric center is at the center of these points and sides of seat.

FIG. 1 Measurements of a Plastic Chaise Lounge

4.2.2 Rough surfaces such as wooden decks, outdoor natural surfaces, etc. The plywood testing base (see Fig. 6) is used to simulate this surface.

5. Apparatus

5.1 *Plastic Chaise Lounges*, with or without moving arms, with adjustable backs, which have been inspected and met a manufacturers internal quality standards.

5.2 *One-Heavy-Weight Canvas or Leather Bag*, 16 in. $\pm$ 0.2 in. (406 mm $\pm$ 5.1 mm) in diameter, which shall be measured prior to testing to determine stretching, having a total measurement not to exceed 17.5 in. (445 mm) in diameter when filled with steel or lead shot 0.09 to 0.12 in. (2.3 to 3.0 mm) in diameter) to a total weight of 150 $\pm$ 1.5-lb (68 $\pm$ 0.7-kg). The bag shall be fitted with a safety cable to prevent it from hitting the glass testing base but should not interfere with the test.

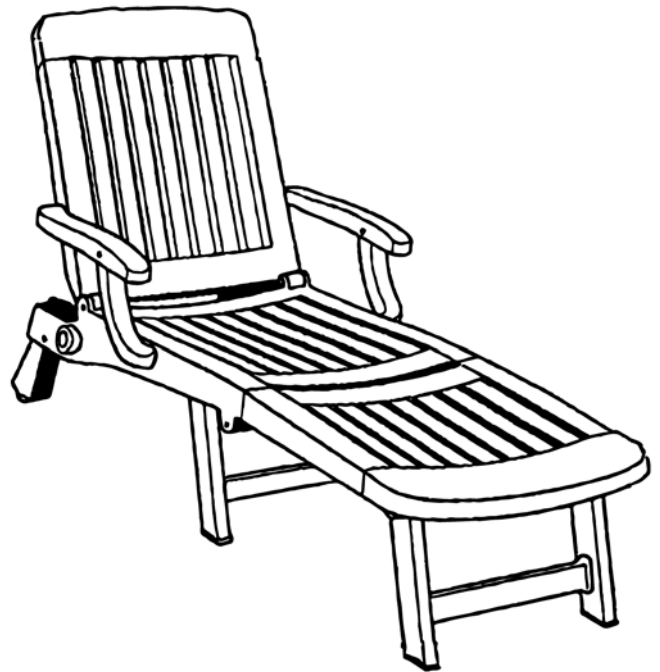


FIG. 2 Folding Plastic Chaise Lounge with Adjustable Back

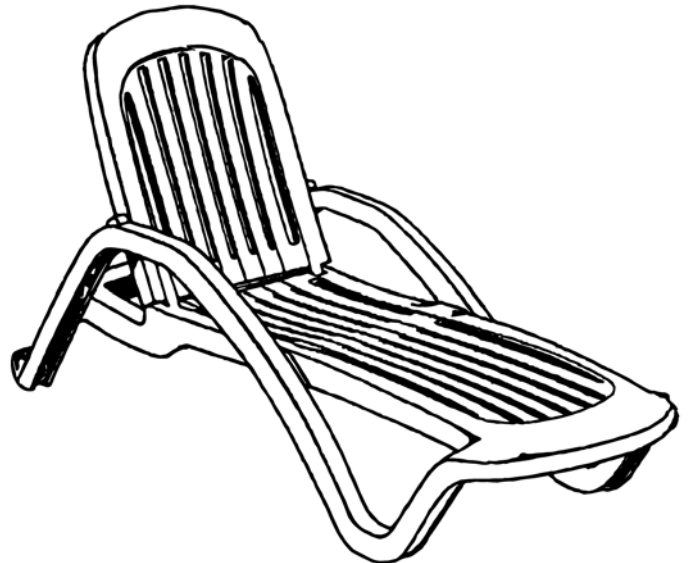


FIG. 3 Non-folding Plastic Chaise Lounge with Adjustable Back

5.3 *One Heavy-Weight Canvas or Leather Bag*, identical to the bag in 5.2; however, the weight is increased by addition to the bag of 100 $\pm$ 1.0-lb (45 $\pm$ 0.5-kg) of either (1) additional