



Standard Performance Requirements for Multipositional Plastic Chairs with Adjustable Backs or Reclining Mechanisms for Outdoor Use¹

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1. Scope

1.1 These performance requirements cover nationally recognized performance requirements for multipositional plastic chairs, with adjustable backs or reclining mechanisms, intended for outdoor use.

1.2 These performance requirements are not applicable to chaise lounges, 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 Manufactured from Recycled Plastics*—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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

D638 Test Method for Tensile Properties of Plastics

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

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.

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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.

(Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials (Withdrawn 2000)³

3. Terminology

3.1 Definitions:

3.1.1 *multipositional plastic chair with adjustable back or reclining mechanisms, n*—for the purposes of these provisional performance requirements, a molded, upright piece of furniture with arms, intended for seating one person, having a seat height not less than 15 in. (381 mm) and not greater than 19 in. (483 mm) with the seat and back in the most upright position, and having a seat width not less than 16 in. (406 mm) and not greater than 30 in. (762 mm) (as shown in Fig. 1).

3.1.1.1 *Discussion*—These requirements are applicable to folding chairs with adjustable backs (see Fig. 2), non-folding chairs with adjustable backs (see Fig. 3), and folding chairs with reclining mechanisms (see Fig. 4).

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.

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 *Multipositional Plastic Chairs with Adjustable Backs or Reclining Mechanisms*, which have been inspected and met a manufacturer's internal quality standards.

5.2 *One Heavy-Weight Canvas or Leather Bag*, 16 ± 0.2 in. (406 ± 4 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

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