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Standard Specification for Special Needs Shopping Carts¹

This standard is issued under the fixed designation F3176; 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.

INTRODUCTION

This standard is intended to address performance and safety specifications for a special needs shopping cart used in, but not limited to, retail, grocery, drug, discount stores. The intended use of the special needs shopping cart is for transporting or assisting the transport of a special needs individual while shopping for retail goods. There is no injury data to review to assist in determining performance and safety specifications for the special needs shopping cart. Performance and safety specifications are developed in accordance with applicable European EN standards and in consultation with other consumer product specialists.

This standard is not intended to address incidents and injuries resulting from the interaction of other persons with individuals in special needs shopping carts or incidents resulting from unforeseeable abuse or misuse.

This standard is written within the current state of the art of shopping cart technology. It is intended that this standard will be updated whenever substantive information becomes available which necessitates additional requirements or justifies the revision of existing requirements.

1. Scope

1.1 This standard covers performance requirements, test methods, and marking/labeling requirements for special needs shopping carts.

1.2 This standard is intended to address special needs shopping carts for use by children and adults with special needs.

1.3 This standard does not include any provisions for the use of infant carriers on the special needs shopping cart.

1.4 The following precautionary caveat pertains only to the test method portion, Section 7, of this standard. *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.*

1.5 This standard is not intended to address restraint systems. It is the manufacturers' responsibility to determine whether or not a restraint system is required.

1.6 *This international standard was developed in accordance with internationally recognized principles on standard-*

ization 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

[D3359 Test Methods for Rating Adhesion by Tape Test](#)

2.2 *European EN Standards:*³

[EN 1929-3: 2005 Sec. 5.3 Trolley strength](#)

[EN 1929-3: 2005 Sec. 5.4 Goods carrying facility strength test](#)

[EN 1929-3: 2005 Sec. 5.5 Stability tests](#)

[EN 1929-3: 2005 Sec. 5.6 Basket wall impact strength test](#)

[EN 1929-3: 2005 Sec. 5.7 Base strength test](#)

[EN 1929-3: 2005 Sec. 5.9 Measurement of the force required for setting in motion](#)

[EN 1929-3: 2005 Sec. 5.11 Test for the impact or the caster mounting points](#)

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

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.

³ Available from European Standard Store, Krimicka 134 318 13 Pilsen, Czech Republic, VAT: CZ7908212026; <http://www.en-standard.eu>.

¹ This specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.56 on Shopping Carts.

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3.1.1 *conspicuous, adj*—visible when the product is in a manufacturer’s recommended use position, to a person standing near the product at any one position around the product but not necessarily visible from all positions.

3.1.2 *special needs shopping cart, n*—non-motorized, wheeled vehicle generally used for the transport of an occupant with special needs, which is defined as an individual with physical disabilities; and for their personal items and purchases made while shopping in retail stores.

3.1.3 *goods carrying facility*—device on the special cart used for the placement of goods.

4. Calibration and Standardization

4.1 The product shall be completely assembled, unless otherwise specified, in accordance with the manufacturer’s instructions

4.2 No testing shall be conducted within 48 h of manufacturing.

4.3 The product to be tested shall be in a room with an ambient temperature of 73 °F ± 9 °F (23 °C ± 5 °C) for at least 1 h before testing. Testing shall then be conducted within this temperature range.

5. General Requirements

5.1 Labeling:

5.1.1 *Warning Labels*—shall be permanent when tested in accordance with 7.2.1.

5.1.2 *Warning Statements*—Applied directly onto the surface of the product by hot stamping, heat transfer, printing, silk screening, and so forth shall be permanent when tested in accordance with 7.2.2.

6. Performance Requirements

6.1 *Rolling Quality*—The product shall be fitted with at least four caster wheels of which two of the caster wheels swivel.

6.2 *Mechanism for Securing the Product during Occupant Loading/unloading*—The product shall be fitted with a parking device that does not permit movement of the product beyond 5 mm in any direction when tested in accordance with the test method in 7.10.

6.3 *Product Strength*—Permanent deformation shall not be greater than 7 mm when tested in accordance with 7.3.

6.4 *Goods Carrying Facility Strength*—Every goods carrying facility shall not show any damage and/or permanent deformations and shall continue to function as intended when tested in accordance with 7.4.

6.5 *Stability*—The product shall not tip over when tested in accordance with 7.5.

6.6 *Basket Wall Impact Strength*—Permanent deformation of the side and front of the basket shall not be greater than 40 mm when tested in accordance with 7.6.

6.7 *Base Strength*—Permanent deformation in any dimension D1, D2, D3 shall not be greater than 5 mm when tested in accordance with 7.7.

6.8 *Force Required for Setting in Motion*—The product shall move forward after removal of the stopping device when tested in accordance with 7.8.

6.9 *Impact Strength of Caster Mounting Points*—There shall be no breakage to the casters, the caster mounting points, or welds when tested in accordance with 7.9.

7. Test Methods

7.1 If during the course of conducting the test methods in this specification, a test product suffers any permanent deformation or damage, an additional test product of the same model shall be used for the remainder of the test methods.

7.2 *Permanency of Labels and Warnings:*

7.2.1 A label shall be considered permanent if, during an attempt to remove it without the aid of tools or solvents, it cannot be removed or such action damages the surface to which it is attached.

7.2.2 Adhesion test for warnings applied directly onto the surface of the product.

7.2.2.1 Apply the tape test defined in Test Method B—Cross-Cut Tape Test, from Test Methods D3359, eliminating parallel cuts.

7.2.2.2 Perform this test method once in each different location where warnings are applied.

7.2.2.3 The warning statements will be considered permanent if the printing in the area tested is still legible and attached after being subjected to this test.

7.3 *Product Strength Test Method*—Test performed in accordance with EN 1929-3: 2005 Sec. 5.3

7.4 *Goods Carrying Facility Strength Test Method*—Test performed in accordance with EN 1929-3: 2005 Sec. 5.4.

7.5 *Stability Test Method*—Test performed in accordance with EN 1929-3: 2005 Sec. 5.5 Type B Trolleys.

7.6 *Basket Wall Impact Strength Test Method*—Test performed in accordance with EN 1929-3:2005 Sec. 5.6.

7.7 *Base Strength Test Method*—Test performed in accordance with EN 1929-3:2005 Sec. 5.7.

7.8 *Force Required for Setting in Motion Test Method*—Test performed in accordance with EN 1929-3 2005 Sec. 5.9.

7.9 *Impact Strength of Caster Mounting Points Test Method*—Test performed in accordance with EN 1929-3:2005 Sec. 5.11.

7.10 *Mechanism for Securing Product during Occupant Loading/unloading Test Method*—Wheel the product in the forward direction, loaded with the manufacturers maximum weight limit as stated in 8.2.2.2 onto a tilting platform. The weight shall be distributed evenly between the seat portion and the cargo portion. If there is no seat portion then the maximum weight shall be in the cargo portion only. Apply the parking device. With the back of the product facing rearward, tilt the platform in the rearward direction to an incline of 6°, and observe for 5 min.

8. Marking and Labeling

8.1 Each product and its retail carton, if applicable, shall be marked clearly and legibly to indicate the following: