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Standard Specification for Special Needs Shopping Carts¹

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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-*

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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>.

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:

8.1.1 The name, place of business (city, state, and mailing address, including zip code) and the telephone number of the manufacturer, distributor or seller

8.1.2 The model number, stock number, catalog number, item number, type, company trademark/ID, or other symbol expressed numerically, or otherwise.

8.1.3 Code mark or other means that identifies the date (month and year as a minimum) manufactured.

8.2 Each special needs shopping cart shall have warning statements. The warning statements shall be in contrasting color(s), permanent, conspicuous, and sans serif style font.

8.2.1 In warning statements, the safety alert symbol “△” and the word “WARNING” shall not be less than 0.2 in. (5 mm) high. The remainder of the text shall be characters whose upper case shall be at least 0.1 in. (2.5 mm) high. The word “WARNING” shall be in bold face type.

8.2.2 The warnings shall address the following:

8.2.2.1 Warnings regarding age limitations.

8.2.2.2 Warnings regarding maximum weight limitations.

8.2.2.3 Warnings regarding loading and unloading instructions.

8.2.2.4 Warnings regarding parking operation.

8.2.2.5 Warnings regarding special instruction or features unique to a manufacturer’s specific design, if applicable.

9. Instructional Literature and Operational Responsibility

9.1 *Manufacturer Responsibilities*—The manufacturer shall provide instructions to the retailer with the product order in the English language that shall be easy to read and understand. Instructions are for retailer use. These instructions shall address where applicable, the following:

9.1.1 Installation and assembly instructions.

9.1.2 Include warnings in 8.2.2.

9.1.3 Product safety inspection criteria

9.1.4 Product maintenance recommendations.

9.1.5 Include the statement: Remove any product from service (consumer use/any use), if it is found to be damaged or it fails one or more maintenance checks until repair or replacement can be made.

9.1.6 Safe use guidelines (do’s and don’ts).

9.1.7 A phone number or e-mail address to be used by retailers to get assistance about the product.

9.2 Retailer/Owner Responsibilities:

9.2.1 *Safety Inspection and Maintenance Program*—Each retailer/owner shall implement a program of safety inspection and maintenance based upon manufacturers’ recommended safety inspection (9.1.3), and maintenance (9.1.4), providing for the duties and responsibilities necessary to care for the product.

9.2.2 Each retailer/owner shall read and become familiar with the contents of the manufacturers’ instructional literature when received.

9.2.3 The product shall be removed from service (consumer use/any use) when it is found to be damaged or fails one or more of the maintenance checks until repair or replacement can be made.

9.2.4 The product shall be maintained in safe operating conditions consistent with all parts of this standard.

9.2.5 Warning statements and the product shall be visually checked during the routine collection process of the product. Any signs of excessive wear or damage shall be reported to management for corrective action and if necessary, the product shall be removed from service (consumer use/any use) until repair or replacement can be made.

9.3 Consumer and Caregiver Responsibilities:

9.3.1 There are inherent risks associated with special needs shopping carts, as with any other moving object. It is expected that consumers and caregivers by participation accept the risks inherent in such participation of which the ordinary prudent person is or should be aware. Consumers and caregivers have a duty to exercise good judgment, act in a responsible manner while using special needs shopping carts, and obey all oral or written warnings and instructions, or both, prior to or during participation, or both.

10. Keywords

10.1 carts; shopping carts; special needs; trolley