## ISO 22015:2019 (E)

## Packaging — Accessible design — Handling and manipulation

## Contents

Foreword

## Introduction

1 Scope

4

- 2 Normative references
- 3 Terms and definitions
  - Design considerations for increasing accessibility in handling and manipulation
    - 4.1 General
    - 4.1.1 General considerations
    - 4.1.2 Mapping
    - 4.1.3 Affordance
    - 4.1.4 Feedback
    - 4.1.5 Avoidance of simultaneous multiple operations
    - 4.2 Weight and shape
    - 4.2.1 Weight
    - 4.2.2 Shape
    - 4.2.3 Grip and grip size
    - 4.2.4 Balance and stability
    - 4.3 Ease of manipulation for opening and reclosing
    - 4.3.1 Opening and reclosing mechanisms
    - 4.3.2 Screw-tops
    - 4.3.3 Top seals
    - 4.3.4 Tearing
    - 4.3.5 Lids
    - 4.4 Ease of use: taking out contents
    - 4.4.1 Measured dispensing
    - 4.4.2 Prevention of splashing or spilling
    - 4.5 Storage
    - 4.6 Disposal and recycle
    - 4.6.1 Disposal and separation
    - 4.6.2 Folding and crushing
- 5 Safety
  - 5.1 General
  - 5.1.1 Foolproof
  - 5.1.2 Failsafe
  - 5.2 Specific considerations
  - 5.2.1 Sharp points or edges
  - 5.2.2 Weight
  - 5.2.3 Heat protection
- 6 Evaluation of handling and manipulation
  - 6.1 General
  - 6.2 Instrument-based evaluation
  - 6.3 User-based evaluation
- 7 Conformance

Annex A (informative) Ergonomics and ergonomic data for handling and manipulation of packaging

- A.1 General: Task analysis of packaging handling for understanding factors affecting handling and manipulation of packaging
- A.2 Physical factors and reference data
- A.2.1 General
- A.2.2 Lifting weight and gripping
- A.2.3 Handles for heavy packaging
- A.2.4 Grip size
- A.2.5 Size and handling
- A.2.6 Grip force
- A.2.7 Shape of packaging and handling

Annex B (informative) Examples of packages of ease of handling and manipulation

- B.1 Holding and lifting to weight
- B.2 Holding and lifting to grip
- B.3 Holding and lifting to grip size
- B.4 Holding and lifting to screw-tops
- B.5 Holding and lifting to tearing
- B.6 Holding and lifting to measured dispensing
- B.7 Holding and lifting to prevention of splashing or spilling
- B.8 Holding and lifting to efficient storage
- B.9 Holding and lifting to disposal and separation
- B.10 Holding and lifting to heat
- B.11 Failsafe

Page count: 27