

No. R. 522

17 April 2003

## STANDARDS ACT, 1993

## PROPOSED COMPULSORY SPECIFICATION FOR PLASTIC CARRIER BAGS AND FLAT BAGS

It is hereby made known under section 22 (3) of the Standards Act, 1993 (Act No. 29 of 1993), that the Minister of Trade and Industry intends to declare the specification for plastic carrier bags and flat bags as set out in the Schedule, to be a compulsory specification.

The purpose of the compulsory specification is to assist the implementation of the Plastic Bags Regulation under Section 24 of the Environmental Conservation Act (Act 73 of 1989) as declared by the Minister of Environmental Affairs and Tourism in Government Notice No. 23393 of 9 May 2002 in order to protect the environment.

Any person, who wishes to object to the intention of the Minister to declare the specification concerned to be a compulsory specification, shall lodge his objection in writing with the President, South African Bureau of Standards, Private Bag X191, Pretoria, 0001, on or before the date two (2) months after publication of this notice.

A. Erwin  
MINISTER OF TRADE & INDUSTRY

## SCHEDULE

### COMPULSORY SPECIFICATION FOR PLASTIC CARRIER BAGS AND FLAT BAGS

#### 1 Scope

**1.1** This standard specifies requirements for carrier bags and flat bags that are made from thermo-plastic materials.

**1.2** This standard covers plastic carrier bags and flat bags, both domestically produced and imported, for use within the Republic of South Africa.

**1.3** This standard covers the thickness and printing requirements of these bags.

**1.4** This standard does not cover bread bags, refuse bags, bin liners, household plastic bags, or primary packaging such as barrier bags.

**1.5** This standard does not cover plastic bags for export.

#### 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this standard. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent edition of the standard indicated below. Information on currently valid national and international standards can be obtained from Standards South Africa.

SANS 4591, *Plastics – Film and sheeting – Determination of average thickness of a sample, and average thickness and yield of a roll, by gravimetric techniques (gravimetric thickness)*.

#### 3 Definitions

For the purposes of this standard, the following definitions apply:

**3.1**

**barrier bag**

thin or flimsy bag, used to separate incompatible products at the final point of sale, for health, hygiene or transport purposes

**3.2**

**carrier bag**

bag constructed with handles, and with or without gussets

**3.3**

**commercial distribution**

practice of making plastic bags directly or indirectly available for packaging or carrying of goods

**3.4**

**flat bag**

bag constructed without handles, and with or without gussets

**3.5****plastic film**

continuous, thin, non-woven membraneous skin, or layer of flexible material, made of thermoplastic materials

**3.6****primary packaging**

packaging that is in direct contact with the product, and the purpose of which is to contain the product during transport, or handling, to the point of distribution or use

**3.7****trade**

the sale of plastic bags to any person including, but not limited to, manufacturers, wholesalers and retailers of goods, for use in the Republic of South Africa

**4 Requirements****4.1 Construction and materials**

Plastic bags, offered for trade or commercial distribution as carrier bags or flat bags, shall be made from plastic film consisting of polyethylene or polypropylene.

**4.2 Film thickness**

When the film thickness of a plastic carrier bag or flat bag is measured in accordance with 6.1, no individual thickness measurement shall be less than 24 µm.

**5 Printing requirements****5.1 Types of ink**

**5.1.1** Ink used for printing on plastic carrier bags or flat bags shall be classified as one of the following types:

- Type A: Ink that is a single resin based system, based on a co-solvent polyamide.
- Type B: Ink that does not comply with the requirements for type A.

**5.1.2** When compliance with the requirements for type A ink (see 5.1.1) is claimed, the claimant shall supply a declaration of conformity with the requirements for type A with each consignment or batch of bags.

**5.1.3** When dried ink is tested in accordance with 6.2, type A ink shall not exhibit any change of colour.

**5.2 Permitted coverage of printing**

**5.2.1** For ink of type A, the mass percentage of dried solids of the printed ink, relative to the mass of an unprinted bag, shall not exceed 2,25 %.

**5.2.2** For ink of type B, the mass percentage of dried solids of the printed ink, relative to the mass of an unprinted bag, shall not exceed 1,125 %.

**6 Test methods****6.1 Film thickness**

Measure the thickness of the plastic film using the method described in SANS 4591, and check the results for compliance with 4.2.

## **6.2 Type of ink (nitrocellulose spot test)**

### **6.2.1 Principle**

A solution of diphenylamine in concentrated sulfuric acid is used to indicate the presence of nitrocellulose. The reagent causes an almost instantaneous formation of a dark blue colour on contact with nitrocellulose.

**CAUTION:** The substances used for this test are extremely dangerous. Gloves and safety glasses should be used throughout the preparation and use of this solution.

### **6.2.2 Preparation of test solution**

**6.2.2.1** Carefully mix together the following ingredients in a conical flask whilst cooling the flask under running water:

- a) 0,5 g diphenylamine ( $C_{12}H_{11}N$ );
- b) 10,0 g water; and
- c) 30,0 g concentrated sulfuric acid (98 %).

**CAUTION:** Add the acid slowly to the water.

**6.2.2.2** Carefully add a further 60,0 g of concentrated sulfuric acid, and mix gently.

**6.2.2.3** Transfer the contents of the flask to a dark glass bottle, and label and date the bottle.

**NOTE** The solution should have a shelf life of approximately one month. The solution will initially be a yellow/orange colour, and it should be discarded and prepared afresh if it shows any signs of discolouration (which would probably indicate a reaction with light, oxidation or contamination).

### **6.2.3 Procedure**

**6.2.3.1** Place one drop of the test solution on a sample of the dried ink to be tested.

**6.2.3.2** Check after 30 s for any colour change.

**NOTE** If the colour changes to dark blue, it indicates the presence of nitrocellulose.

## **7 Consignment slips and markings**

**7.1** The following information shall be provided, either in print on each bag, or in the form of a consignment slip included with every consignment or batch of bags:

- a) the name of the manufacturer, importer or distributor (who shall be domiciled in South Africa); and
- b) the country of origin.

**7.2** All markings on the consignment slips (or bags) shall be in the English language, at least.