IS 14452 (2009): Textiles - Care Labelling Code Using Symbols [TXD 20: Made-up Textiles]

BLANK PAGE

IS 14452 : 2009
ISO 3758 : 2005

भारतीय मानक

वस्त्रादि — प्रतीकों द्वारा केयर लेबल लगाने की संहिता — विशिष्टि

(पहला पुनरीक्षण)

Indian Standard

TEXTILES — CARE LABELLING CODE USING SYMBOLS — SPECIFICATION

(First Revision)

ICS 59.080.01

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG .
NEW DELH1110002

September 2009 **Price Group 9**

Made-up Textiles Including Ready-made Garments Sectional Committee, TXD 20

NATIONAL FOREWORD

This Indian Standard (First Revision) which is identical with ISO 3758:2005 'Textiles — Care labelling code using symbols' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Made-up Textiles Including Ready-made Garments Sectional Committee and approval of the Textiles Division Council.

This standard was first published in 1997 and was based on ISO 3758 :1991 Textiles — Care labelling code using symbols'. The first revision of this standard has been taken up to align it with ISO 3758:2005 by adoption under dual numbering system.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker in the International Standard while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 1960 'Rules for rounding off numerical values *{revised}'.*

Indian Standard

TEXTILES — CARE LABELLING CODE USING SYMBOLS — SPECIFICATION

(First Revision)

1 Scope

This international Standard

— establishes a system of graphic symbols, intended for use in the marking of textile articles (see also 4.1), providing information to prevent irreversible damage to the article during the textile care process;

— specifies the use of these symbols in care labelling.

The following domestic treatments are covered: washing, bleaching, ironing, and drying after washing. Professional textile care treatments in dry and wet cleaning, but excluding industrial laundering, are also covered. However, it is recognized that information imparted by the four domestic symbols will also be of assistance to the professional cleaner and launderer.

This International Standard applies to al! textile articles in the form in which they are supplied to the end user.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
textile articles
yams, piece goods and made-up articles containing at least 80 % by mass textile material

2.2
washing
process designed to clean textile articles in an aqueous bath

NOTE Washing includes ail or some of the following operations in relevant combinations:

— soaking, pre-washing and main washing — carried out usually with heating, mechanical action and in the presence of
detergents or other products — and rinsing;

—- water extraction, i.e. spinning or wringing performed during and/or at the end of the operations mentioned

above. These operations may be carried out by machine or by hand.

2.3
bleaching
process carried out in an aqueous medium before, during, or after washing, requiring the use of an oxidizing agent including either chlorine or oxygen/non-chlorine products, for the purpose of improving soil and stain removal and/or improving whiteness

2.3.1
chlorine bleach
agent that releases hypochlorite ions in solution, e.g. sodium hypochlorite

2.3.2
oxygen/non-chlorine bleach
agent that releases a peroxygen species in solution

NOTE Oxygen bleach products encompass a wide range of different activated and non-activated bleaching species which vary in their activity.

2.3.3
bleach activator
agent that allows bleaching to occur at lower wash temperatures

2.4
drying
process carried out on textile articles after washing to remove excess water {or moisture)

2.4.1
tumble drying after washing
process carried out on textile articles after washing, with the intention of removing residual water by treatment with hot air in a rotating drum

2.4.2
natural drying
process carried out on a textile article after washing, with the intention of removing residual water by line drying, or drip drying, or drying fiat in the sun or in the shade

2.5
ironing and pressing
process carried out on a textile article to restore its shape and appearance by means of an appropriate appliance using heat, pressure and possibly steam

2.6
professional textile care
professional dry cleaning and professional wet cleaning, excluding commercial laundering

2.6.1
professional dry cleaning
process for cleaning textile articles by means of treatment in any solvent (excluding water) normally used for dry cleaning by professionals

NOTE This process consists of cleaning, rinsing and spinning. It is followed by appropriate drying and restorative finishing procedures.

2.6.2
professional wet cleaning
process for cleaning textile articles in water carried out by professionals using special technology (cleaning, rinsing and spinning), detergents, and additives to minimize adverse effects

NOTE It is followed by appropriate drying and restorative finishing procedures.

3 Description and definition of symbols

3.1 Basic symbols and additional symbols

Five basic symbols and four additional symbols are provided.

3.1.1 Washing

For the washing processes, a washtub as shown in Figure 1.

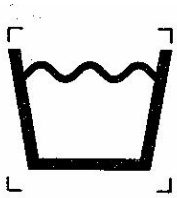


Figure 1

3.1.2 Bleaching

For the bleaching processes, a triangle as shown in Figure 2.

Figure 2

3.1.3 Drying

For the drying processes, a square as shown in Figure 3.

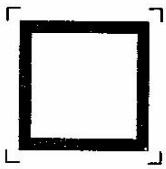


Figure 3

3.1.3.1 For drying in a tumble dryer after a washing process, a square with a circle inscribed as shown in Figure 4.

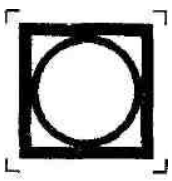


Figure 4

3.1.3.2 For further information on symbols for natural drying, see Annex C.

3.1.4 Ironing and pressing

For the ironing and pressing processes, a hand iron shape as shown in Figure 5.

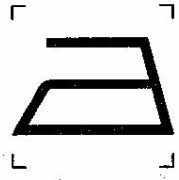


Figure 5

3.1.5 Professional textile care

For the professional dry cleaning and professional wet cleaning processes (excluding commercial laundering), a circle as shown in Figure 6.

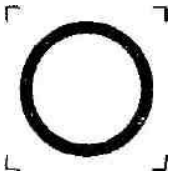


Figure 6

3.1.6 Treatment not permitted

In addition to the six symbols described in 3.1.1 to 3.1.5, an additional symbol, the St. Andrew's cross, superimposed on any of them means that the treatment represented by that symbol shall not be used.

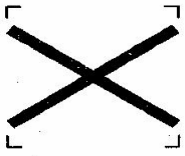


Figure 7

3.1.7 Mild treatment

In addition to the basic symbols, a bar under the symbol means that the treatment should be more mild than indicated by the same symbol without a bar, e.g. reduced agitation.

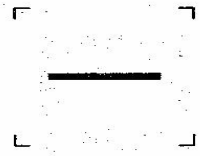


Figure 8

3.1.8 Very mild treatment

In addition to the basic symbols, a double bar under the symbol describes a very mild process, e.g. much reduced agitation.

Figure 9

3.1.9 Temperature of treatment

The temperature in connection with the symbol in 3.1.1 is given as a figure representing degrees Celsius (30, 40,50,60, 70 or 95) without the designation "°C"

In addition to the three symbols 3.1.1 (washing), 3.1.3 (drying) and 3.1.4 (ironing and pressing), dots may be used to define the temperature impact of a treatment. The definition of the temperature is given with the basic treatments.

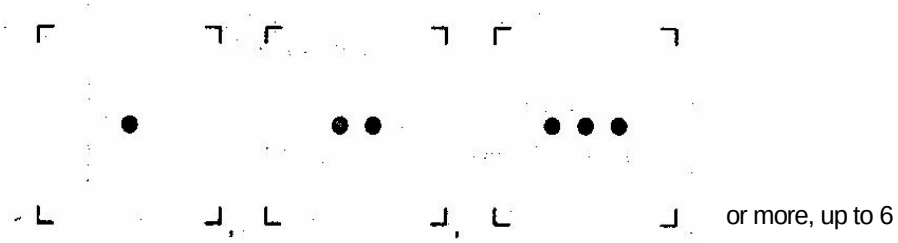


Figure 10

3.2 Washing

The washtub symbolizes the domestic washing treatment (by hand or machine) (see Figure 1). It is used to convey information regarding the maximum washing temperature and the maximum washing process severity, as shown in Table 1.

Table 1 — Symbols for washing processes

Symbol	Washing process
	— maximum washing temperature 95 °C — normal process
	— maximum washing temperature 95 °C — mild process
	— maximum washing temperature 70 °C — normal process
	— maximum washing temperature 60 °C — normal process
	— maximum washing temperature 60 °C — mild process
	— maximum washing temperature 50 °C — normal process
	— maximum washing temperature 50 °C — mild process
	— maximum washing temperature 40 °C — normal process
	— maximum washing temperature 40 °C — mild process
	— maximum washing temperature 40 °C — very mild process
	— maximum washing temperature 30 °C — normal process
	— maximum washing temperature 30 °C — mild process
	— maximum washing temperature 30 °C — very mild process
	— hand wash — maximum temperature 40 °C
	— do not wash

3.3 Bleaching

The triangle symbolizes the bleaching process (see Figure 2 and Table 2).

Table 2 — Symbols for bleaching

Symbol	Bleaching process
	— any oxidizing bleaching agent allowed
	— only oxygen/non-chlorine bleach allowed
	— do not bleach/no bleach

3.4 Drying

3.4.1 Natural drying

Described in Annex C.

3.4.2 Tumble drying

The circle in a square symbolizes tumble drying after a washing process (see Figure 4), the maximum temperature setting being indicated by one or two dots placed within the symbol, as shown in Table 3.

Table 3 — Symbols for tumble drying

Symbol	Tumble drying process
	— tumble drying possible — normal temperature
	— tumble drying possible — drying at lower temperature
	— do not tumble dry

3.5 Ironing and pressing

The iron symbolizes the domestic ironing and pressing process, with or without steam (see Figure 5), maximum temperature levels being indicated by one, two or three dots placed within the symbol as shown in Table 4.

Table 4 — Symbols for ironing

Symbol	Ironing process
	— iron at maximum sole plate temperature of 200 °C
	— iron at maximum sole plate temperature of 150 °C
	— iron at maximum sole plate temperature of 110 °C — steam ironing may cause irreversible damage
	— do not iron

3.6 Professional textile care

The circle (see Figure 6) symbolizes the dry cleaning and wet cleaning process for textile articles {excluding genuine leather and furs) carried out by professionals. It provides information relative to different cleaning processes described in Table 5. Use of the wet cleaning symbol shall be optional.

Table 5 — Symbols for professional textile care

Symbol	Textile care process
	— professional dry cleaning in tetrachloroethene and all solvents listed for the symbol F — normal process
	— professional dry cleaning in tetrachloroethene and all solvents listed for the symbol F — mild process
	— professional dry cleaning in hydrocarbons (distillation temperature between 150 °C and 210 °C, flash point between 38 °C and 70 °C) — normal process
	— professional dry cleaning in hydrocarbons (distillation temperature between 150 °C and 210 °C, flash point between 38 °C and 70 °C) — mild process
	— do not dry clean
	— professional wet cleaning — normal process
	— professional wet cleaning — mild process
	— professional wet cleaning — very mild process

4 Application and use of symbols

4.1 Application of symbols

The symbols defined in Clause 3 shall, when possible, be placed either directly on the article or directly on the label. Where this is not possible, it is sufficient to indicate the care instructions on the packaging only.

Labels shall be made of suitable material with resistance to the care treatment indicated on the label at least equal to that of the article on which they are placed.

Label and symbols shall be large enough for the symbols to be easy to read.

It is very important that the labels and symbols are designed in such a way that they can easily be read by the consumer. They shall be permanently affixed to the textile material in such a way that they can be easily located and read by the consumer and that no part of the symbols is hidden, e.g. the bar in a stitched seam.

4.2 Characteristics and test methods for the selection of appropriate symbols

The relevant characteristics and the respective test procedures are laid down In Annex A (informative).

4.3 Use of symbols

The symbols shall appear in the order washing, bleaching, drying, ironing and professional textile care, except in countries where the symbols are subject to statutory regulations or trademarks, where they shall appear in the order prescribed by the regulations or trademarks.

The treatments represented by the symbols apply to the whole of the textile article.

Annex A
(informative)

Characteristics and available test methods for the correct selection of care symbols

A.1 Definitions

A.1.1 Characteristics

Characteristics that are important for the usability of textile articles and which may be influenced in a negative way by care treatments.

It is recommended that information on the performance of textile articles and their components with respect to cleaning treatments be obtained before selecting care labels.

A.1.2 Test methods

A.1.2.1 Laboratory methods

Test methods using laboratory devices which simulate procedures in practice.

A. 1.2.2 Machine (full-scale) methods

Test methods applying standardized procedures similar to those used in practice.

A. 1.2.3 Sensory assessment

Evaluation method which uses human senses only.

A.2 Characteristics

A.2.1 Characteristics tested by laboratory methods

— Colour fastness. The general principles of testing are laid down in ISO 105-A01. The scales for assessing the change in colour and staining are specified in ISO 105-A02 and ISO 105-A03, respectively.

A.2.2 Characteristics tested by full-scale methods

— Performance when washing, tumble drying and dry cleaning. The relevant attributes may be determined by standardized test methods or sensory assessment.

The relevant characteristics are listed in Table A.1. column 1.

A.3 Test methods

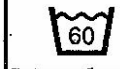
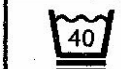
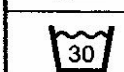
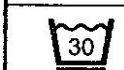
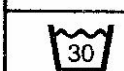
A summary overview of the respective test methods is given in Table A.1, column 3. Details of the laboratory and machine methods are given in the Tables A.2 to A.6 for the standardized care symbols.

Other characteristics may be taken into account according to the materials, structure and application of the articles.

Table A.1 – Characteristics, testing and test methods

Characteristics	Method of test	Method of assessment
Colour fastness (see Tables A.2, A.3, A.4, A.5)	Laboratory methods	ISO 105-A02 and ISO 105-A03, visual assessment against standard scales
Dimensional change	Full-scale methods Washing, tumble drying: ISO 6330 Dry cleaning: ISO 3175-2 to ISO 3175-4	ISO 3759, ISO 5077, physical measurements
Appearance of seams		ISO 7770, visual assessment against standard scales ISO 15487, visual assessment
Retention of permanent creases		ISO 7769 ISO 15487, visual assessment
Creasing of durable press articles		ISO 7768, visual assessment against standard scales ISO 15487, visual assessment
Surface		ISO 12947-4, visual assessment ISO 15487, visual assessment
Pilling and fuzzing		Visual assessment in accordance with ISO 12945-1 or ISO 12945-2 against standard scales
Flock loss		—
Fuzziness of velvets and synthetic furs		—
Hardening of coated fabrics		—
Delamination of coated and laminated fabrics		ISO 2411, visual assessment
Separation of fusible interlining		—
Hand modifications		—
Unravelling, fraying of seams		ISO 13936-1, ISO 13936-2, physical measurement
Yarn slippage		—

Table A.2 —Washing

Symbol	Full-scale method[a]		Colour fastness[b] laboratory method
	Type A machine Front-loading horizontal-drum type	Type B machine Top-loading agitator type	
	ISO 6330:2000, 1A	—	ISO 105-C06:1994, E2S and/or ISO 105-C08
	ISO 6330:2000, 9A	—	ISO 105-C06:1994, E2S and/or ISO 105-C08
	—	ISO 6330:2000, 1B	ISO 105-C06:1994, D2S or D1M and/or ISO 105-C08
	ISO 6330:2000, 2A	ISO 6330:2000, 2B	ISO 105-C06:1994, C2S or C1M and/or ISO 105-C08
	ISO 6330:2000, 3A	ISO 6330:2000, 3B	ISO 105-C06:1994, C2S or C1M and/or ISO 105-C08
	—	ISO 6330:2000, 4B	ISO 105-C06:1994, B2S or B1M and/or ISO 105-C08
	ISO 6330:2000, 4A	ISO 6330:2000, 5B	ISO 105-C06:1994, B2S or B1M and/or ISO 105-C08
	ISO 6330:2000, 5A	ISO 6330:2000, 6B	ISO 105-C06:1994, A2S or A1M and/or ISO 105-C08
	ISO 6330:2000, 6A	ISO 6330:2000, 7B	ISO 105-C06:1994, A2S or A1M and/or ISO 105-C08
	ISO 6330:2000, 7A	ISO 6330:2000, 8B	ISO 105-C06:1994, A2S or A1M and/or ISO 105-C08
	—	ISO 6330:2000, 9B	ISO 105-C06:1994, A2S or A1M
	—	ISO 6330:2000, 10B	ISO 105-C06:1994, A2S or A1M
	ISO 6330:2000, 8A	ISO 6330:2000, 11B	ISO 105-C06:1994, A2S or A1M
	ISO 6330:2000, simulated hand wash	—	ISO 105-C06:1994, A2S or A1M

[a] Drying: Method E, or other appropriate drying procedure.

[b] The test fabrics to be used for testing for dye transfer are multifibre fabric type DW and type TV for 40 °C and 50 °C and 60°C, type TV for 70 °C, and single-fibre cotton and polyester for 95 °C, using a realistic interpretation of staining results in accordance with normal practice in households. Other tests that might be useful to evaluate possible dye transfer or Colour fastness problems are ISO 105–E01 (fastness to water), especially in the case of acid dyes on wool, polyamides and silk, as well as ISO 105-X12 (fastness to rubbing — wet), especially in the case of pigment dyes and prints, and also in the case of insufficient penetration of dyes into fabrics giving washing problems

Table A.3 — Bleaching

Symbol	Full-scale method		Colour fastness laboratory method
	Type A machine Front-loading horizontal-drum type	Type B machine Top-loading agitator type	
	—	—	ISO 105-N01[a]
	ISO 6330	ISO 6330	ISO 105-C09

[a] The scorch test (AATCC TM 92) is an additional test for resin-treated fabrics (cellulosic and its blends). No appreciable yellowing should occur and the loss of tensile strength should be less than 25 %.

Table A.4 — Tumble drying

Symbol	Full-scale method
	ISO 6330:2000, 8.5, exhaust temperature max. 70 °C
	ISO 6330:2000, 8.5, exhaust temperature max. 50 °C

Table A.5 ~ Ironing

Symbol	Test method	Colour fastness method	Staining/change in colour		
			dry	damp	wet
	—	ISO 105-X11 (200 °C)	+	—	+
	—	ISO 105-X11 (150 °C)	—	+	+
	—	ISO 105-X11 (110 °C)	—	—	+

\+ shall be tested.
— no test needed.

Table A.6 — Professional textile care

The basic principles of evaluation and the characteristics to be checked are listed in ISO 3175-1. Information on fibre content is also needed to select and interpret bars used with professional textile care symbols.

Symbol	Full-scale method	Colour fastness laboratory method[a]
	ISO 3175-2:1998, 8.1	ISO 105-D01
	ISO 3175-2:1998, 8.2	ISO 105-D01
	ISO 3175-3	ISO 105-D01, method to be modified to use appropriate solvent
	ISO 3175-3	ISO 105-D01, method to be modified to use appropriate solvent
	ISO 3175-4	ISO 105-C06:1994, A1S
	ISO 3175-4	ISO 105-C06:1994, A1S
	ISO 3175-4	ISO 105-C06:1994, A1S

[a] Other tests that might be useful to evaluate possible dye transfer or fastness problems are ISO 105-D02 (fastness to rubbing — organic solvents) for dry cleaning and ISO 105-X12 (fastness to rubbing — wet) for wet cleaning.

Annex B
(informative)

Regional and national practices in care labelling

B.1 General

In certain countries or regions of the world, there are regulations or specific requirements related to certain care symbols or the order of symbols on the care label. The following is information related to these requirements. Contact the nation or regional group for further information.

B.2 Regional requirements in the GINETEX countries

B.2.1 GINETEX {International Association for Textile Care Labelling), created in 1963, headquartered in Paris, has developed the system of language-independent symbols. The symbols are covered by international trademarks registered at WIPO in Geneva (notably under No. 2R211 247, No. 461 470 and No. 492 423 — non-exhaustive list). GINETEX, while safeguarding their property rights as such, agreed that ISO take over the system and embody it in an International Standard.

B.2.2 GINETEX members require the use of the trademarked 5-symbol label.

B.2.3 The dry cleaning instructions are required to be always positioned within the 5-symbol label. If information on both dry and wet cleanability is to be given, the dry cleaning symbol is required to be positioned within the 5-symbol label, with the wet cleaning symbol positioned directly under the dry cleaning symbol.

B.2.4 Natural drying symbols do not need to be used.

B.2.5 Membership of GINETEX includes Austria, Belgium, Czech Republic, Luxembourg, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Spain, Switzerland, Tunisia and the United Kingdom. For further information, see the web site <www.ginetex.org>.

B.3 National requirements in the United States

B.3.1 A care label carrying 4-symbol washing instructions or dry cleaning instructions is required. However, both sets of instructions may be given. If a washing instruction (washing, bleaching, drying or ironing) is not given, the most severe treatment may be used.

B.3.2 Washing temperatures in degrees Celsius and dots are required by law on the care labels on textile articles sold in the USA when care instructions in writing (English) are absent.

B.3.3 Descriptions and definitions of dot symbols for defining temperature in connection with the washing symbol are as follows:

B.3.3.1 Very hot temperature, maximum 95 °C.

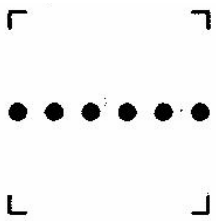


Figure B.1

B.3.3.2 Very hot temperature, maximum 70 °C.

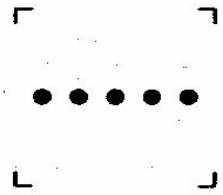


Figure B.2

B.3.3.2 Hot temperature, maximum 60 °C

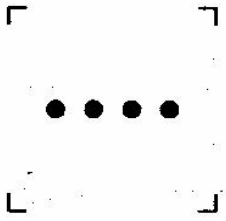


Figure B.3

B.3.3.4 Hot temperature, maximum 50 °C.

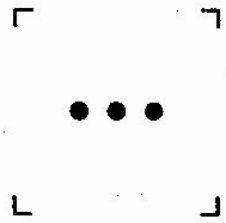


Figure B.4

B.3.3.5 Warm temperature, maximum 40 °C.

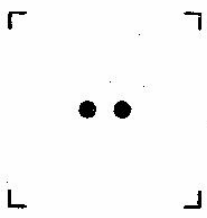


Figure B.5

B.3.3.6 Cool or cold temperature, maximum 30 °C. Minimum 20 °C.

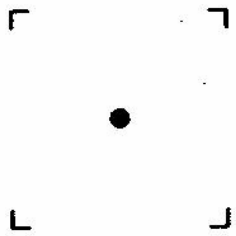


Figure B.8

Table B.1 — Symbols with dots for washing processes

Symbol	Washing process
	— maximum washing temperature 95 °C — normal process
	— maximum washing temperature 70 °C — normal process
	— maximum washing temperature 60 °C — normal process
	— maximum washing temperature 60 °C — mild process
	— maximum washing temperature 50 °C — normal process
	— maximum washing temperature 50 °C — mild process
	— maximum washing temperature 40 °C — normal process
	— maximum washing temperature 40 °C — mild process
	— maximum washing temperature 40 °C — very mild process
	— maximum washing temperature 30 °C — normal process
	— maximum washing temperature 30 °C — mild process
	— maximum washing temperature 30 °C — very mild process

B.3.3.7 For further information, see the web site <www.ftc.gov>.

AnnexC
(informative)

Symbols for natural drying

C.1 General

These symbols have been introduced in order to have a uniform way worldwide to label natural drying processes in those countries which need them.

When used, they should be positioned under the 5-symbol label and clearly separated from the normative symbols.

Natural drying instructions can be given In words or in symbols.

C.2 Definition

Natural drying is a process carried out on a textile article after washing, with the intention of removing residual water by line drying, or drip drying, or drying flat, in the sun or in the shade.

C.3 Description and definition of symbols

For the natural drying process, the basic symbol is a square, as shown in Figure C.1.

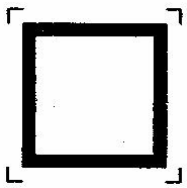


Figure C.1

Additional symbolization within the square represents the specific natural drying processes of line drying, drip drying, drying flat, line drying in the shade, drip drying in the shade and drying flat in the shade, as shown in Tabled.

The square with the curved line between the top corners represents line drying, whereby the textile article is dried by hanging it damp from a line or bar in or out of doors after extraction of excess water.

The square with the three vertical lines inside represents the drip drying process, whereby the textile article is dried by hanging it dripping wet, with or without reshaping or smoothening, in or out of doors, without extraction of excess water.

The square with one horizontal line inside represents the flat drying process, whereby the textile article is reshaped and dried horizontally on a flat surface, in or out of doors, after extraction of excess water.

The square with the two diagonal fines in the top left corner represents drying away from the sun. This symbol is placed over the symbols for line drying, drip drying and drying flat to indicate that the natural drying process shall be carried out away from the sun.

Table C.1 —Symbols for natural drying process

Symbol	Natural drying process
	— line drying
	— drip drying
	— drying flat
	— drying in the shade

Test methods to determine or confirm natural drying care instructions are described in ISO 6330:2000 for line drying (ISO 6330.2000,8.1), drip drying (ISO 6330:2000,8.2) and drying flat (ISO 6330:2000, 8.3).

Annex D
(informative)

Examples of additional wording

D.1 Definition

Additional wording is additional care information that may accompany the symbolized care instructions and is necessary for the refurbishment of textile articles without harm to the product or others being cleaned with it, allowing ordinary use and enjoyment of the textile item.

D.2 Examples of additional wording

Additional wording commonly used is listed in Table D.1.

The use of other additional words may be necessary when any part of the prescribed regular care procedure, which the consumer or professional cleaner could reasonably be expected to use, would harm the product or others being cleaned with it.

The number of additional words in the label should be kept to a minimum.

Table D.1 — Examples of additional wording

— remove ... before washing	— professional leather clean only.
— wash separately	— no optical brighteners
— wash with like colours	— use wash net
— wash before use	— do not steam iron
— wash inside out	— steam only
— do not wring or twist	— do not soak
— damp wipe only	— steam iron recommended
— do not add fabric conditioner	— dry away from direct heat
— remove promptly	— reshape whilst damp
— iron reverse side only	— line dry
— do not iron decoration	— reshape and dry flat
— use press cloth	— drip dry
— dry flat	— dry away from the sun

Bibliography

[1] ISO 105-A01, *Textiles — Tests for colour fastness — Part A01: General principles of testing*

[2] ISO 105-A02, *Textiles— Tests for colour fastness— Part A02: Grey scale for assessing change in colour*

[3] ISO 105-A03, *Textiles — Tests for colour fastness — Part A03: Grey scale for assessing staining*

[4] ISO 105-006:1994, *Textiles — Tests for colour fastness — Part C06: Colour fastness to domestic and commercial laundering*

[5] ISO 105-C08, *Textiles— Tests for colour fastness— Part COS: Colour fastness to domestic and commercial laundering using* a *non-phosphate reference detergent incorporating a low temperature bleach activator*

[6] ISO 105-C09, *Textiles— Tests for colour fastness— Part COQ: Colour fastness to domestic and commercial laundering— Oxidative bleach response using a non-phosphate reference detergent incorporating a low temperature bleach activator*

[7] ISO 105-D01, *Textiles — Tests for colour fastness — Part D01: Colour fastness to dry cleaning*

[8] ISO 105-D02, *Textiles— Tests for colour fastness— Part D02: Colour fastness to rubbing: Organic solvents*

[9] ISO 105-E01, *Textiles — Tests for colour fastness — Part E01: Colour fastness to water*

[10] ISO105-N01, *Textiles— Tests for colour fastness— Part NOU Colour fastness to bleaching: Hypochlorite*

[11**]** ISO 105-X11, *Textiles — Tests for colour fastness —* Part *X11: Colour fastness to hoi pressing*

[12] ISO 105-X12, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing*

[13] ISO 2411, *Rubber- or plastics-coated fabrics — Determination of coating adhesion*

[14] ISO 3175-1. *Textiles— Professional care, drycleaning and wetcleaning of fabrics and garments — Part 1: Assessment of performance after cleaning and finishing*

[15] ISO 3175-2:1998, *Textiles— Professional care, drycleaning and wetcleaning of fabrics and garments— Part2: Procedure for testing performance when cleaning and finishing using te tra chloroethene*

[16] ISO 3175-3, *Textiles — Professional care, dry cleaning and wet cleaning of fabrics and garments — Part 3: Procedure for testing performance when cleaning and finishing using hydrocarbon solvents*

[17] ISO 3175-4, *Textiles — Professional care, dry cleaning and wet cleaning of fabrics and garments — Part 4: Procedure for testing performance when cleaning and finishing using simulated wetcleaning*

[18] ISO 3759, *Textiles — Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change*

[19] ISO 5077, *Textiles — Determination of dimensional change in washing and drying*

[20] ISO 6330:2000, *Textiles — Domestic washing and drying procedures for textile testing*

[21] ISO 7768, *Textiles — Method for assessing the appearance of durable press fabrics after domestic washing and drying*

[22] ISO 7769, *Textiles — Method for assessing the appearance of creases in durable-press products after domestic washing and drying*

[23] ISO 7770, *Textiles — Method for assessing the appearance of seams in durable press products after domestic washing and drying*

[24] ISO 12945-1, *Textiles — Determination of fabric propensity to surface fuzzing and to pilling — Part 1: Pilling box method*

[25] ISO 12945-2, *Textiles — Determination of fabric propensity to surface fuzzing and to pilling — Part 2: Modified Martindale method*

[26] ISO 12947-4, *Textiles— Determination of the abrasion resistance of fabrics by the Martindale method — Part 4: Assessment of appearance change*

[27] ISO 13936-1, *Textiles— Determination of the slippage resistance of yarns at* a *seam in woven fabrics — Part 1: Fixed seam opening method*

[28] ISO 13936-2, *Textiles— Determination of the slippage resistance of yarns at a seam in woven fabrics — Part 2: Fixed load method*

[29] ISO 15487, *Textiles— Method for assessing appearance of apparel and other textile end products after domestic washing and drying*

MGIPF—281 Deptt. of BIS/2009—25.9.2009—300 Books.

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act,* 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard alongwith amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' arid 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc No.: TXD 20 (0893).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 2323 0131, 2323 3375, 2323 9402 *Website*: www.bis.org.in

Regional Offices: *Telephones*

Central	:	Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	2323 7617 2323 3841
Eastern	:	1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700054	2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	:	SCO 335-336, Sector 34-A, CHANDIGARH 160022	260 3843 260 9285
Southern	:	C.I.T. Campus, IV Cross Road, CHENNAI 600113	2254 1216, 2254 1442 2254 2519, 2254 2315
Western	:	Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	2832 9295, 2832 7858 2832 7891, 2832 7892

Branches : AHMEDABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE. DEHRADUN. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR. LUCKNOW. NAGPUR. PARWANOO. PATNA. PUNE. RAJKOT. THIRUVANANTHAPURAM. VISAKHAPATNAM.

Printed by the Manager, Govt. of India Press, Faridabad