INTERNATIONAL STANDARD

ISO 9354

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Textiles — Weaves — Coding system and examples

Textiles — Armures — Codage et exemples

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 9354 was prepared by Technical Committee ISO/TC 38, *Textiles*.

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Textiles — Weaves — Coding system and examples

1 Scope

This International Standard establishes a code for the systematic numerical notation for basic weaves and their simple derivatives.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3572 : 1976, *Textiles — Weaves — Definitions of general terms and basic weaves.*

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 3572 apply.

4 Code

4.1 Formulation of code

The code for any basic weave or one of its simple derivatives is made up from four two-digit number elements that are separated from one another by hyphens (-). These elements indicate, in sequence, the following characteristics of the weave:

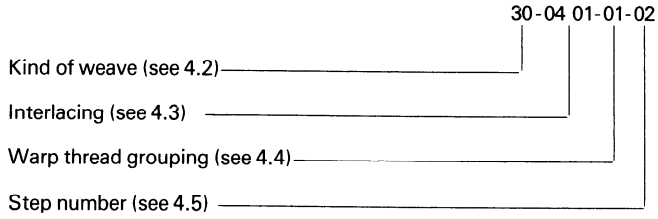
first element: the kind of weave;

second element: the sequence of interlacing of the yarns, i.e. warp up or down;

third element: the warp thread grouping, i.e. the warp yarns weaving singly or in groups;

fourth element: the step (or move) number.

EXAMPLE — For a 5-end warp satin, step 2, the code is:



4.2 First element: Kind of weave

This element contains one two-digit number. The first digit indicates whether the weave belongs to the plain, twill or satin/sateen group of weaves. The second digit indicates whether the first (bottom left) square in the weave diagram shows a warp up or down (see table 1).

NOTE — It is usual for simple weaves to start the diagrams with a warp up but often weft-faced "S" twills and warp-faced "Z" twills start with a warp down.

Table 1

Number in the first element	Kind of weave	Weave diagram showing in the first (bottom left) square :
10	Plain or a derivative	a warp up
11	Plain or a derivative	a warp down
20	Twill or a derivative	a warp up
21	Twill or a derivative	a warp down
30	Satin/sateen or a derivative	a warp up
31	Satin/sateen or a derivative	a warp down

4.3 Second element : Sequence of interlacing

This element contains at least two two-digit numbers separated from each other by a space. These numbers indicate the sequence of interlacing of a warp thread with the weft threads either as warp up or down until a complete repeat of interlacing is obtained. The first number in this sequence will indicate a warp up or down according to whether the second digit in the first element is 0 or 1 respectively.

NOTE — The addition of these numbers in the second element will give the number of weft threads in the complete repeat of the weave.

4.4 Third element : Warp thread grouping

This element contains one two-digit number or, where necessary, several two-digit numbers separated from each other by spaces. Each number indicates the number of consecutive warp yarns in the weave diagram that have the same sequence of interlacing.

EXAMPLES :

01 indicates single warp threads;

03 indicates that three consecutive warp threads have the same sequence of interlacing;

04 02 indicates that four consecutive warp threads with common interlacings alternate with two consecutive warp threads with common interlacings.

4.5 Fourth element : Step (move) number

4.5.1 Plain weave and its derivatives

The fourth element for a plain weave or its derivatives contains the two-digit number 00, i.e. for the purpose of this specification the weave is assumed to repeat on the same pick and there is no step number.

4.5.2 Other weaves

This element contains one two-digit number or, when necessary, several two-digit numbers separated from each other by spaces. Each number indicates a step as shown on the weave diagrams in tables 3 and 4.

5 Examples of codes for various groups of weaves

5.1 Plain weave and some derivatives

Table 2

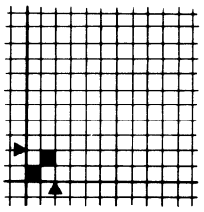
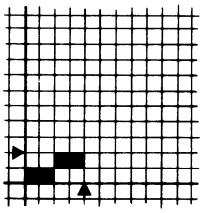
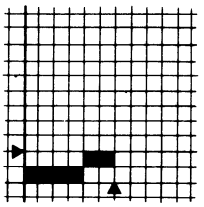
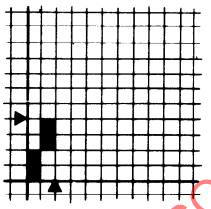
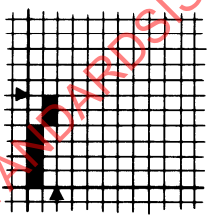
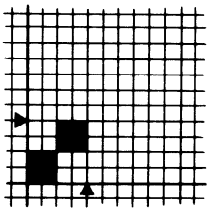
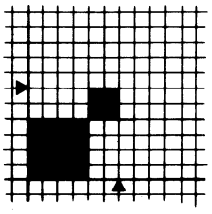
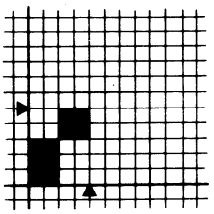
Weave diagram	Name	Code
	Plain	10-01 01-01-00
	Oxford	10-01 01-02-00
	Weft rib (4 + 2)	10-01 01-04 02-00
	Warp rib (2 + 2)	10-02 02-01-00
	Warp rib (4 + 2)	10-04 02-01-00
	Hopsack (matt)	10-02 02-02-00

Table 2 *(continued)*

Weave diagram	Name	Code
	Hopsack 4/4; 2/2	10-04 02-04 02-00
	Hopsack 3/2; 2/2	10-03 02-02-00

5.2 Twill weaves and some derivatives

Table 3

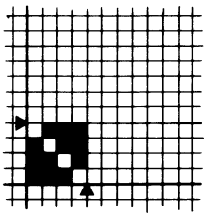
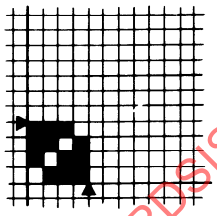
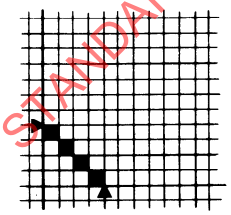
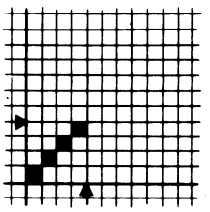
Weave diagram	Name	Code
	3/1 twill, "S" direction	20-03 01-01-03
	3/1 twill, "Z" direction	21-01 03-01-01
	1/3 twill, "S" direction	21-03 01-01-03
	1/3 twill, "Z" direction	20-01 03-01-01

Table 3 *(continued)*

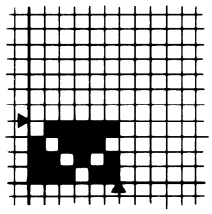
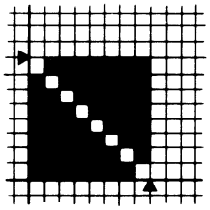
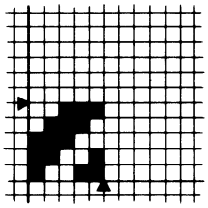
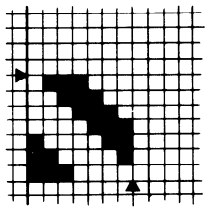
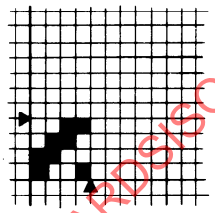
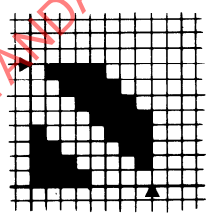
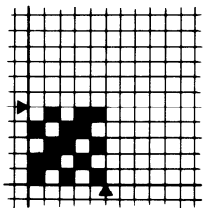
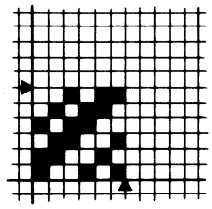
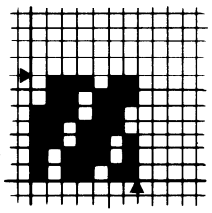
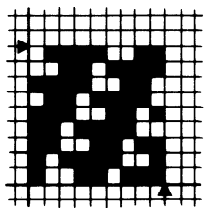
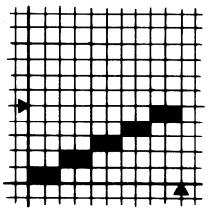
Weave diagram	Name	Code
	3/1 twill, reversing	20-03 01-01-03 03 03 01 01
	7/1 twill, "S" direction	20-07 01-01-07
	3/2 twill, "Z" direction	20-03 02-01-01
	3/4 twill, "S" direction	20-03 04-01-06
	2/2 twill, "Z"direction	20-02 02-01-01
	4/4 twill, "S" direction	20-04 04-01-07
	5-end stitched twill, "Z" direction	20-02 01 01 01-01-01

Table 3 *(continued)*

Weave diagram	Name	Code
	6-end stitched twill, "Z" direction	20-02 01 01 02-01-01
	5/2 steep twill, "Z" direction	20-05 02-01-02
	9-end stitched twill, "Z" direction	20-05 01 01 02-01-02
	1/4 flat twill, "Z" direction	20-01 04-02-01

5.3 Warp satin, weft sateen and a derivative

Table 4

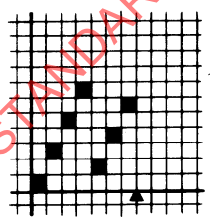
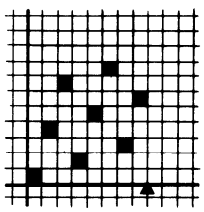
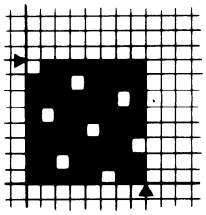
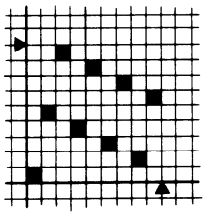
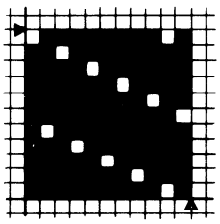
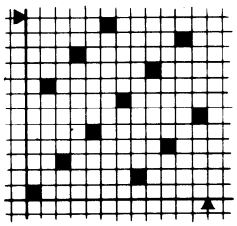
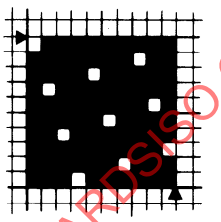
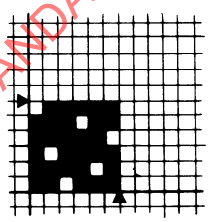
Weave diagram	Name	Code
	7-end weft sateen, step 2	30-01 06-01-02
	8-end weft sateen, step 3	30-01 07-01-03

Table 4 *(continued)*

Weave diagram	Name	Code
	8-end warp satin, step 5	30-07 01-01-05
	9-end weft sateen, step 4	30-01 08-01-04
	11-end warp satin, step 5	30-10 01-01-05
	12-end weft sateen, step 7	30-01 11-01-07
	10-end warp satin, step 7	30-09 01-01-07
	6-end cross warp satin, steps 3, 4, 4, 3, 2	30-05 01-01-03 04 04 03 02