

SRI LANKA STANDARD 874 : PART 2 : 1989

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SPECIFICATION FOR
STEEL PRODUCTS
PART 2 - IDENTIFICATION MARKINGS

SRI LANKA STANDARDS INSTITUTION

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SLS 874 : Part 2 : 1989

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SRI LANKA STANDARDS INSTITUTION

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Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD
SPECIFICATION FOR STEEL PRODUCTS
PART 2 : IDENTIFICATION MARKINGS

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 89-12-28, after the draft, finalized by the Drafting Committee on Steel products, had been approved by the Mechanical Engineering Divisional Committee.

This standard deals with classification, definitions and identification markings of steel products and is published in two parts namely;

- Part 1 Classification and definitions
- Part 2 Identification markings

It is intended to prepare further standards covering steel products.

The desirability of reducing the risk of mistaken identification of materials by producers, dealers including importers, processors or users has led to more exacting requirements regarding the marking of steel products. Specifying all the requirements for identifying steel products in a general standard of this nature in a binding manner is impracticable due to differences in the types of marking of steel products. At most it is possible to lay down marking requirements case by case within a general frame work.

This part of the standard provides a survey of the customary or technically feasible methods of marking of steel products, recommends position of marking and identifies features to be marked on a case by case basis. It serves as a basis for agreement in cases where the conditions of delivery for the products concerned do not contain any marking provision, but identification marking is nevertheless required. However it has been decided to dispense with provisions concerning the size of the markings and on relationships between the product dimensions and the type of marking, since it is not possible to establish any binding rules on this. There remains the fundamental requirement that the markings must be readily legible and clearly differentiable from one another.

In the preparation of this standard, assistance obtained from relevant publications of the British Standards Institution and the German Institute for Standardization is gratefully acknowledged.

1 SCOPE

This standard specifies the types of marking envisaged in situations where the quality standard or conditions of delivery do not contain any marking provision but it is nevertheless required to mark the steel products. Products may be supplied marked according to this standard even when no form of marking has been agreed.

For the identification of steels, precedence is given to the provisions adopted to this effect in the product standards, or other conditions of delivery according to which the products are ordered.

2 REFERENCES

BS 381 C Colours for identification, coding and special purpose

3 DEFINITIONS

For the purpose of this standard the definitions given in SLS 874 : Part 1 shall apply.

4 REQUIREMENTS

4.1 Features to be identified

4.1.1 The product features to be identified include the following :

- 1) Steel grade (code number and/or material number);
- 2) Steelmaker;
- 3) Heat number;
- 4) Sample number/Batch number;
- 5) Form of products;
- 6) Main dimensions; and
- 7) Quantity (No. of items, weight etc.).

NOTE : *The steel grade shall be identifiable from the marking unless agreements of a more far reaching nature have been made.*

4.1.2 The features of identification which are considered mandatory are indicated in Table 1 for each type of product.

4.2 Types of marking

Depending on the method of marking, the markings will consist either alone or in combination of figures, letters, geometrical signs (dots, strokes etc.) or coloured markings. The markings must be legible and clearly differentiable.

TABLE 1 Mandatory identification features technically practicable methods of marking and position of identification markings for steel products

S L S No.	Product (2)	Method of marking (4.3)							Position of the identification markings on the product (10)
		Rolled-in Symbols (3)	Stamping (4)	Printing (5)	Painting Spraying (6)	Identity plate (7)	Tie-on tags (8)	Adhesive Labels (9)	
	Ingots	-	-	-	*1,2,3 6	1,2,3,4, 6,7	-	-	side face, bottom face
	Blooms, Billets	-	*1,2,3	*1,2,3	*1,2,3	1,2,3,4, 6,7	1,2,3,4, 6,7	-	end face,side face
	Slab sheet bar	-	*1,2,3	*1,2,3	*1,2,3	1,2,3,4, 6,7	-	-	end face,side face. top face
949	Bar (sq., rect., hex.)	1*,2	1*,2	1,2	1,2	-	1,2,3,4, 6,7	1,2,3,4, 6,7	top, bottom, end, faces; **circum. surface where applicable
907	Sections (ang., T, U, I, H, etc.) Rods, Wires	1*,2	1*,2	1*,2 3,4,6	1,2, 3,4,6	-	1,2,3,4, 6,7	1,2,3,4, 6,7	web and end face **circum. surface, side of coil
	Strips hot/cold	-	-	1*,2,3	1*,2,3	-	1,2,3,4, 6,7	1,2,3,4, 6,7	**circum. surface side of coil
	Sheets hot/cold	-	-	1*,2,3, 6	1*,2,3, 6	-	1,2,3,4, 6,7	1,2,3,4, 6,7	top face, side face of pack
	Plates hot/cold	-	1*,2,3,	1*,2,3, 6	1*,2,3, 6	-	1,2,3,4, 6,7	1,2,3,4, 6,7	top face, side face
	Wide flats	-	1*,2	1*,2,3, 6	1*,2,3, 6	-	1,2,3,4, 6,7	1,2,3,4, 6,7	top face, end face
	Tubes Hollow sec.	-	1*,2	1*,2,3, 6	1*,2,3, 6	-	1,2,3,4, 6,7	-	**circum. surface
	Rails	*1,2	*1,2, 4,6	-	*1,2,3, 4,6	-	-	-	web
	Slippers fish plates	*1,2	*1,2, 4,6	-	-	-	-	-	side faces
375	Cold worked steel bars	*1,2	-	1,2	-	-	1,2,4, 6,7	-	**circum. surface

* for special steel grades only

** Circum. surface = circumferential surface.

NOTE

1) Digit indicated under method of marking refers to the features to be identified (see 4.1).

Marking in colour is preferred; if coded markings are used, their significance shall be made known to the purchaser.

4.3 Methods of marking

4.3.1 The marking shall not adversely affect the properties or usefulness of the product. Any colours used for identification purposes (usually of steel grade) should comply with BS 381 C .

4.3.2 Depending on the form and dimensions of the products, (see Table 1) the marking described in 4.2 can be applied, in the manner specified below.

NOTE : The methods of marking mentioned in Table 1 for specific products can not be used indiscriminately for any feature given in 4.1.1 that has to be identified.

4.3.2.1 Rolling : Rolled-in markings are applied by rolling during manufacture. These markings are generally used for identifying the steelmaker, the form of section and possibly the sectional dimensions of the products stated in Table 1.

4.3.2.2 Stamping : The stamping of marking is performed mechanically or by hand using steel punches.

4.3.2.3 Printing : Printing of markings is performed by means of stamps or rollers. (see also 4.3.3)

4.3.2.4 Painting or spraying : Painting or spraying of markings is performed manually or mechanically, frequently with the use of stencils. (see also 4.3.3)

4.3.2.5 Identity plates : Pre-manufactured identity plates of metal are attached by welding, cartridge-firing, screwing or bonding. (see also 4.3.3)

4.3.2.6 Tie-on tags : Tie-on tags, shall be of a size not smaller than A7. (see also 4.3.3)

4.3.2.7 Adhesive labels : (see also 4.3.3)

4.3.3 The paints, tie-on tags and adhesive labels used for applying the markings must have the following properties :

a) adequate resistance to chemical effects caused by the substrate

Example : rust;

b) adequate resistance to weathering;

c) adequate impact resistance; and

d) good adhesion.

Any special requirements in regard to properties such as ready removability of markings must be agreed at the time of ordering.

5 POSITION OF MARKINGS

The position of the markings on the product shall be chosen closer to an end face/corner so that they remain readily visible.

Table 1 indicates appropriate positions for the markings, depending on the product and method of marking.

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SRI LANKA STANDARDS INSTITUTION

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The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI which includes surveillance inspection of the factory, testing of both factory and market samples.

Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.

