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**Aluminij in aluminijeve zlitine - Kemična sestava in oblika gnetenih izdelkov - 1.**  
**del: Sistem številčnega označevanja**

Aluminium and aluminium alloys - Chemical composition and form of wrought products -  
Part 1: Numerical designation system

Aluminium und Aluminiumlegierungen - Chemische Zusammensetzung und Form von  
Halbzeug - Teil 1: Numerische Bezeichnungssysteme

Aluminium et alliages d'aluminium - Composition chimique et forme des produits  
corroyés - Partie 1: Systeme de désignation numérique

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**Ta slovenski standard je istoveten z: EN 573-1:1994**

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**ICS:**

77.040.30	Kemijska analiza kovin	Chemical analysis of metals
77.150.10	Aluminijski izdelki	Aluminium products

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EUROPEAN STANDARD

EN 573-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1994

UDC 669.71:669.715.018.26:62-777

Descriptors: Aluminium, aluminium alloys, rolled products, aluminium products, chemical composition, shape, designation, numerical designation, codification

English version

**Aluminium and aluminium alloys - Chemical  
composition and form of wrought products - Part  
1: Numerical designation system**

Aluminium et alliages d'aluminium - Composition  
chimique et forme des produits corroyés -  
Partie 1: Système de désignation numérique

Aluminium und Aluminiumlegierungen - Chemische  
Zusammensetzung und Form von Halbzeug - Teil 1:  
Numerische Bezeichnungssysteme

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## Foreword

This European Standard has been drawn up by CEN/TC 132 "Aluminium and aluminium alloys", whose Secretariat is held by the Association Française de Normalisation (AFNOR).

Within its programme of work, Technical Committee CEN/TC 132 has been entrusted to prepare the following standard :

EN 573-1 Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 1 : Numerical designation system.

This standard is part of a set of four standards. The other standards deal with :

EN 573-2 Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 2 : Chemical symbol based designation system.

EN 573-3 Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 3 : Chemical composition.

EN 573-4 Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 4 : Forms of products.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 1995, and conflicting national standards shall be withdrawn at the latest by February 1995.

In accordance with the CEN/CENELEC Internal Regulations, following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## 1 Scope

This Part of EN 573 describes a four-figure numerical system for designating wrought aluminium and aluminium alloys. It is in accordance with the Recommendation dated December 15, 1970 for an International Designation System for Wrought Aluminium and Wrought Aluminium Alloys issued by the Aluminum Association, Washington DC 20006, USA.

This standard applies to wrought products and to ingots intended to be wrought.

## 2 Basis of coding

The designation is constituted successively by :

- the prefix EN followed by a blank space ;
- the letter A representing aluminium ;
- the letter W representing wrought products ;
- a hyphen ;
- four figures representing the chemical composition ;
- if required, a letter identifying a national variation.

EXAMPLES : EN AW-5052      [SIST EN 573-1:1998](#)  
 EN AW-5154A      [http://www.itih.ai/catalog/standards/sist/727a53a2-c70d-4bc6-8a8e-44142224ba28/sist-en-573-1-1998](#)

## 3 Four figure designation system

### 3.1 Alloy groups

The first of the four figures in the designation indicates the alloy group as follows :

- Aluminium 99,00 % minimum and greater..... 1xxx (1000 series) ;
- Aluminium alloys grouped by major alloying elements.....
  - Copper ..... 2xxx (2000 series) ;
  - Manganese ..... 3xxx (3000 series) ;
  - Silicon ..... 4xxx (4000 series) ;
  - Magnesium ..... 5xxx (5000 series) ;
  - Magnesium and Silicon ..... 6xxx (6000 series) ;
  - Zinc ..... 7xxx (7000 series) ;

- Other elements ..... 8xxx (8000 series) ;
- Unused series ..... 9xxx (9000 series).

NOTE : For the purpose of this standard an alloying element is any element which is intentionally added for any purpose other than grain refinement and for which minimum and maximum limits are specified.

### 3.2 1xxx group

In the 1xxx group, the last two figures indicate the minimum aluminium percentage. These figures are the same as the two figures to the right of the decimal point in the minimum aluminium percentage, when it is expressed to the nearest 0,01 %.

The second figure indicates modifications in impurity limits or alloying elements. If the second figure in the designation is zero, it indicates unalloyed aluminium having natural impurity limits ; numerals 1 to 9, which are assigned consecutively as needed, indicate special control of one or more individual impurities or alloying elements.

### 3.3 2xxx to 8xxx groups

In the alloy groups 2xxx to 8xxx inclusive, the last two figures have no special significance but serve only to identify the different aluminium alloys in the group.

The second figure indicates alloy modifications. If the second figure in the designation is zero, it indicates the original alloy; numerals 1 to 9 inclusive, which are assigned consecutively, indicate alloy modifications.

### 3.4 National variations

National variations are identified by a serial letter following the four figures. The serial letters are assigned in alphabetical sequence starting with A for the first national variation registered, but omitting I, O and Q.

## 4 Registration rules for alloy modifications

A modification of the original alloy is limited to any one or a combination of the following :

a) change of not more than the following amounts in the arithmetic mean of the limits for an alloying element :

arithmetic mean of limits for alloying elements in original alloy	maximum change
up to 1,0 %	0,15 %
over 1,0 % up to 2,0 %	0,20 %
over 2,0 % up to 3,0 %	0,25 %
over 3,0 % up to 4,0 %	0,30 %
over 4,0 % up to 5,0 %	0,35 %
over 5,0 % up to 6,0 %	0,40 %
over 6,0 %	0,50 %

To determine compliance when limits are specified for a combination of two or more elements in one alloy composition, the mean of such combination shall be compared to the sum of the mean values of the same individual elements, or any combination thereof, in another alloy composition ;

b) addition or deletion of not more than one alloying element with limits having an arithmetic mean of not more than 0,30 % ;

c) substitution of one alloying element for another element serving the same purpose ;

d) change in limits for impurities ;

e) change in limits for grain refining elements ;

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f) distinctive iron or silicon limits, or both, reflecting high purity base metal.

An alloy shall not be registered as a modification if it meets the requirements for a national variation (see clause 5).

## 5 Registration rules for national variations

A national variation has composition limits which are similar but not identical to those registered by another country, with differences such as :

a) differences in arithmetic mean of limits for an alloying element not exceeding the following amounts :

arithmetic mean of limits for alloying elements in original alloy or modification	maximum difference
up to 1,0 %	0,15 %
over 1,0 % up to 2,0 %	0,20 %
over 2,0 % up to 3,0 %	0,25 %
over 3,0 % up to 4,0 %	0,30 %
over 4,0 % up to 5,0 %	0,35 %
over 5,0 % up to 6,0 %	0,40 %
over 6,0 %	0,50 %