



SLOVENSKI STANDARD

SIST EN 546-3:1998

01-april-1998

Aluminij in aluminijeve zlitine - Folija - 3. del: Odstopki mer

Aluminium and aluminium alloys - Foil - Part 3: Tolerances on dimensions

Aluminium und Aluminiumlegierungen - Folien - Teil 3: Grenzabmaße

Aluminium et alliages d'aluminium - Feuilles minces - Partie 3: Tolérances sur dimensions

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Ta slovenski standard je istoveten z: EN 546-3:1996

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ICS:

77.150.10 Alumijski izdelki Aluminium products

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en

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EUROPEAN STANDARD

EN 546-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1996

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Descriptors: aluminium, aluminium alloys, wrought product, foil, dimensional tolerances

English version

**Aluminium and aluminium alloys - Foil - Part 3:
Tolerances on dimensions**Aluminium et alliages d'aluminium - Feuilles
minces - Partie 3: Tolérances sur dimensionsAluminium und Aluminiumlegierungen - Folien -
Teil 3: Grenzabmaße**(standards.iteh.ai)**

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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.

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

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

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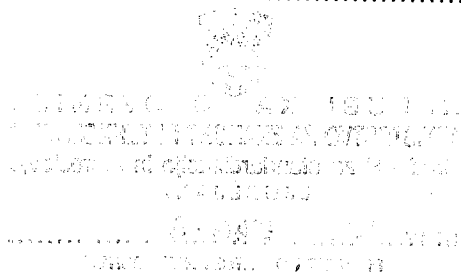
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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

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 December 1996, and conflicting national standards shall be withdrawn at the latest by December 1996.

Within its program of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 6 "Foil and finstock" to prepare the following document for publication as a European Standard :

EN 546-3 Aluminium and aluminium alloys - Foil - Part 3 : Tolerances on dimensions

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

EN 546-1 Aluminium and aluminium alloys - Foil - Part 1 : Technical conditions for inspection and delivery

EN 546-2 Aluminium and aluminium alloys - Foil - Part 2 : Mechanical properties

EN 546-4 Aluminium and aluminium alloys - Foil - Part 4 : Special property requirements

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the 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 the United Kingdom.

1 Scope

This Part of EN 546 specifies the requirements for tolerances on dimensions for single and double-rolled aluminium and aluminium alloy foil supplied in accordance with EN 546-1.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 546-1 Aluminium and aluminium alloys - Foil - Part 1 : Technical conditions for inspection and delivery

3 Tolerances on dimensions for single-rolled foil

3.1 Thickness

3.1.1 Single thickness measurement

The tolerance on thickness for a single measurement for single-rolled foil shall be $\pm 6\%$ at 90 % confidence limits.

Thickness can be measured with any of the usual precision instruments capable of assessing foil thickness but, in the event of a dispute, the weighing method shall be used as a referee procedure.

Description of the weighing method :

for the test sample, cut an area A of approximately 1 dm^2 either square or circular. Degrease the sample if necessary in a suitable solvent and weigh on a laboratory balance with an accuracy of equal to or better than 1 mg. The dimensions of the sample (sides of square or diameter of circle) shall be measured with an accuracy of equal to or better than $\pm 0,1 \text{ mm}$.

Thickness shall be calculated by use of the formula :

$$E = \frac{M}{10 \cdot A \cdot D}$$

where :

E is the thickness in micrometres ;

M is the mass in milligrams ;

D is the density as defined in table 2, in grams per cubic centimetre ;

A is the area in square decimetres.

3.1.2 Mean thickness measurement

The tolerance on thickness for a mean measurement is specified in table 1.

Table 1 : Tolerances on mean measurement of thickness for single rolled foil

Lot size kg	Tolerance
≤ 3 000	± 6 %
> 3 000 to ≤ 10 000	± 5 %
> 10 000	± 4 %

Mean thickness may be obtained by either :

a) calculation :

calculation of mean thickness by this method requires an accurate knowledge of length and net mass of the reels. The mean gauge shall be calculated by the formula :

$$E_m = \frac{P \cdot 10^6}{L \cdot W \cdot D}$$

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where :

E_m is the mean thickness in micrometres ;

P is the net mass in kilograms ;

L is the length in metres ;

W is the width in millimetres ;

D is the density as defined in table 2, in grams per cubic centimetres.

Table 2 : Density

Material	Density g / cm ³
EN AW-1050A	2,70
EN AW-1200	2,71
EN AW-3003	2,73
EN AW-3103	2,73
EN AW-3005	2,73
EN AW-8006	2,74
EN AW-8008	2,74
EN AW-8011A	2,71
EN AW-8079	2,71
EN AW-8014	2,73
EN AW-8111	2,71

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b) averaging spot measurements.

The method shall be agreed between purchaser and supplier.

3.2 Width

The tolerance on width for single-rolled foil is specified in table 3.

Table 3 : Tolerance on width for single-rolled foil

Width mm	Dimensions in millimetres Tolerance		
	Symmetrical	Only plus	Only minus
≤ 1 000	± 1	+2 0	0 -2
> 1 000	± 2	+4 0	0 -4

Unless otherwise specified in the order, the type of tolerance is at the discretion of the supplier.