SLOVENSKI STANDARD
SIST EN 12375:2009

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Nadomešča:
SIST EN 12375:2000

Embalaža - Prožne aluminijaste tube - Metoda za določevanje debeline stene

Packaging - Flexible aluminium tubes - Wall thickness determination method

Packmittel - Aluminiumtuben - Bestimmung der Manteldicke

Emballage - Tubes souples en aluminium - Méthode de détermination de l'épaisseur de paroi

Ta slovenski standard je istoveten z: EN 12375:2009

ICS:

55.120	Pločevinke. Tube	Cans. Tins. Tubes
77.150.10	Aluminijski izdelki	Aluminium products

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EUROPEAN STANDARD

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English Version

Packaging - Flexible aluminium tubes - Wall thickness determination method

Emballage - Tubes souples en aluminium - Méthode de détermination de l'épaisseur de paroi

Packmittel - Aluminiumtuben - Bestimmung der Manteldicke

This European Standard was approved by CEN on 19 March 2009.

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Foreword

This document (EN 12375:2009) has been prepared by Technical Committee CEN/TC 261 “Packaging”, 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of an identical text or by endorsement, at the latest by October 2009, and conflicting national standards shall be withdrawn at the latest by October 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12375:1998.

It is based on the professional recommendations of the European Tube Manufacturers Association (ETMA).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies a method of determination of the thickness of the tube body material of aluminium tubes. It is applicable to tubes used for packing pharmaceutical, cosmetic, hygiene, food and other domestic and industrial products.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13046, *Packaging - Flexible cylindrical metallic tubes - Dimensions and tolerances*

EN 13047, *Packaging - Flexible conical metallic tubes - Dimensions and tolerances*

3 Principle

The measurement of the thickness of the tube wall on prepared samples using a micrometer or a comparable measuring appliance.

4 Apparatus

4.1 Measuring device (e.g. a micrometer with one flat and one spherical face) accurate to 0,001 mm

4.2 Scissors

4.3 Plastics cylinder, round and smooth

4.4 Solvent, capable of dissolving any external enamel from the surface of tubes

5 Procedure

5.1 Preparation of samples

Using the scissors, cut the tube bodies lengthwise. Then cut the shoulders from the tubes.

Dissolve any external enamel from the tube bodies with the solvent (any lacquer film on the inside of the tube is ignored).

When free of all enamel, flatten the tube bodies with a plastic cylinder against a flat hard surface.

5.2 Measurement procedure

Measure the wall thickness with the micrometer at a distance of approximately 10 mm from the tube end at three points evenly distributed around the tube's circumference.

The value of the thickness shall be established as a mean value from at least three measurement points per sample and indicated with an accuracy of 0.01 mm.

6 Test report

The test report shall contain the following information:

a) reference to this standard and, if necessary a specification for the method of sampling and acceptance of the batch;

b) complete identification of the batch and of the tubes checked;

c) nature of the material;

d) test temperature;

e) name of the test instrument;

f) results of the measurements with indication of the position of the points checked and the number of the measurements;

g) number of results falling outside the standard specified limits set out in EN 13046 and EN 13047;

h) if applicable, acceptance or refusal of the batch depending on the specifications (see a));

i) all factors which can have affected the results and which are not specified in this standard;

j) date, place of test and name of tester.