Aluminium and aluminium alloys — Guideline for the production of foil-stock in the field of semi rigid foodstuff containers
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European foreword

This document (EN 16773:2016) 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of an identical text or by endorsement, at the latest by July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

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 standard gives indication on production’s practices to obtain rolled products with specific surface quality properties, necessary for the production of disposable food containers. It contains references to smell and cleanliness requirements of the rolled products, evaluation criteria linked to specific tests; furthermore it contains selection’s criteria for rolling oil and pre-lubricant to be used in the manufacturing process.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.
Introduction

The European Regulation (EC) 1935/2004, regarding materials and objects intended to come in contact with foodstuff and abrogating Directives 80/590/EEC and 89/109/EEC at point 3, states:

“The principle underlying this Regulation is that any material or article intended to come into contact directly or indirectly with food must be sufficiently inert to preclude substances from being transferred to food in quantities large enough to endanger human health or to bring about an unacceptable change in the composition of the food or a deterioration in its organoleptic properties.”

Food containers represent a typical example of products often used in direct contact with food, for which reason they need to be produced in order to avoid particular smells and with an adequate level of "surface cleanliness" (which can otherwise adversely modify food organoleptic properties).
1 Scope

This European Standard provides a guideline about manufacturing practices for rolled products in the thicknesses range between $\geq 35 \mu m$ and $\leq 200 \mu m$ having surface quality characteristics essential for production of aluminium semi-rigid containers, lids and disposable platters which are used in contact with foodstuff.

This European Standard can be applied to the production cycle of the “rolled semi-finished goods”. The European Standard cannot be applied to the production process of containers, lids and disposable platters.

2 Normative references

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

EN ISO 6886, Animal and vegetable fats and oils - Determination of oxidative stability (accelerated oxidation test) (ISO 6886)

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 
tray

equivalent of disposable “single-use” containers intended to be used in contact with foodstuff, produced by aluminium rolled strip having a thickness in the range $\geq 35$ to $\leq 200 \mu m$, soft or partially annealed temper

Note 1 to entry: The strip is normally supplied pre-lubricated in order to allow drawing or stamping. The tray as finished good can have wrinkle or smooth walls.

3.2 
li

disposable aluminium rolled product used for container closure and based on plain foil or paper coupled (the side in contact with food will be the laminated one)

Note 1 to entry: It can close the container with mechanical seaming or by folding an adequate “L shaped” border.

3.3 
platter

containers produced by aluminium rolled strip with platter shape, always used with disposable features

3.4 
typical rolled strip smell

low intensity and constant through time smell, presenting small variations depending on various rolled aluminium manufacturers and the subjective olfactory perception

Note 1 to entry: For typical smells comparison reference test we can consider the pre-lubricant’s smell as it is (with no definite odour), which resists to photo-oxidation processes and to temperature ranges comparable to the conditions existing during transport and storage of containers.