

Glass packaging - 28 millimetre-screw finishes (MCA range) - Dimensions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Glass packaging - 28 millimetre-screw finishes (MCA range) - Dimensions

Emballage en verre - Bagues à vis de 28 millimètres
(bagues MCA) - Dimensions

Verpackungen aus Glas - 28 Millimeter-
Schraubmundstücke (MCA-Serie) - Maße

This European Standard was approved by CEN on 26 June 2023.

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Contents	Page
European foreword	3
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	6
4 Capping head clearance.....	7
5 Dimensions.....	8
6 Thread profiles	11
Annex A (informative) Example of uses in Europe	13
Annex B (informative) Justification of the choice of the F dimension	14
Bibliography	15

European foreword

This document (EN 17829:2023) 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of an identical text or by endorsement, at the latest by January 2024, and conflicting national standards shall be withdrawn at the latest by January 2024.

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

This document supersedes:

- EN 16287-1:2014, *Glass packaging — Screw finishes for pressure capsules — Part 1: Returnable glass MCA 1 finish*;
- EN 16287-2:2014, *Glass packaging — Screw finishes for pressure capsules — Part 2: One way glass MCA 1 finish*;
- EN 16288-1:2014, *Glass packaging — Screw finishes for pressure capsules — Part 1: Returnable glass MCA 3 finish*;
- EN 16288-2:2014, *Glass packaging — Screw finishes for pressure capsules — Part 2: One way glass MCA 3 finish*;
- EN 16289:2013, *Glass packaging — Screw finishes for pressure capsules — MCA 7,5 RF finish*;
- EN 16290-1:2014, *Glass packaging — Screw finishes for pressure capsules — Part 1: Returnable glass MCA 7,5 R finish*;
- EN 16290-2:2014, *Glass packaging — Screw finishes for pressure capsules — Part 2: One way glass MCA 7,5 R finish*;
- EN 16291-1:2013, *Glass packaging — Screw finishes for pressure capsules — Part 1: Returnable glass MCA 2 finish*;
- EN 16291-2:2013, *Glass packaging — Screw finishes for pressure capsules — Part 2: One way glass MCA 2 finish*.

The main changes compared to the previous editions are listed below:

- merger of all the requirements and dimensional features in one single document.
- some dimensions have been slightly modified in order to harmonize the main dimensions of the different MCA-types ($\varnothing N$, height F, some radii, ...).

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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Introduction

MCA is the designation for the agreement regarding a common finish specification between the companies Metal Closures Limited in Great Britain and Alcoa in the USA which are at the origin of these finishes. Originally, these finishes were used on “one way” (single trip) bottles with aluminium closures. The advent of the returnable market in Europe made it necessary to redesign the neck finish to overcome shortcomings in thread and sealing performance. The main differences between the finishes are concerning the thread profile and its pitch.

Historically, the development of the MCAs is partially explained by the differences presented below:

- MCA 1: “flat” under-thread profile, well adapted to the plastic closures;
- MCA 2: round thread profile, more robust and hence better adapted to returnable bottles, but with a risk of ‘blow-off’ with plastic closures;
- MCA 3: thinner thread with flat profile both under and above the finish, closer to the MCA 1, and better adapted for plastic closures and to high pressure;
- MCA 7,5 R (R for round profile): based on the MCA2 but with deeper thread;
- MCA 7,5 RF (RF for round flat): compromise between MCA1 (flat profile under the thread) and the MCA 7,5 R (strong wider thread profile).

A non-exhaustive list of examples of uses in Europe is given in Annex A.

As many different versions of MCA finish exist, the filler should check with the cap manufacturer that the finish design is compatible with the cap.

1 Scope

This document specifies the dimensions of the various 28 mm screw finishes for glass containers designated MCA.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

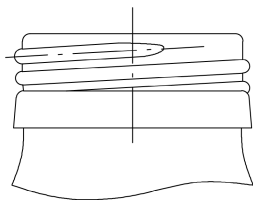
- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

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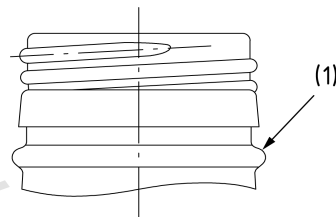
MCA

finish designed for the closure of pressurized or vacuum liquids with a closure (metal or plastic) which on first opening needs to break the tamper evident feature

Note 1 to entry: The finish can be designed with an optional bead for design flexibility (see Figure 1):



a) MCA without transfer bead



b) MCA with transfer bead

Key

- 1 optional transfer bead

Figure 1 — Example of MCA without and with additional transfer bead