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Metallic materials - Sheet and strip - Determination of biaxial stress-strain curve by means of bulge test with optical measuring systems (ISO 16808:2022)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/22

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EN ISO 16808

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English Version

Metallic materials - Sheet and strip - Determination of biaxial stress-strain curve by means of bulge test with optical measuring systems (ISO 16808:2022)

Matériaux métalliques - Tôles et bandes -
Détermination de la courbe contrainte-déformation
biaxiale au moyen de l'essai de gonflement hydraulique
avec systèmes de mesure optiques (ISO 16808:2022)

Metallische Werkstoffe - Blech und Band - Bestimmung
der biaxialen Spannung/Dehnung-Kurve durch einen
hydraulischen Tiefungsversuch mit optischen
Messsystemen (ISO 16808:2022)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EN ISO 16808:2022 (E)

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European foreword

This document (EN ISO 16808:2022) has been prepared by Technical Committee ISO/TC 164 "Mechanical testing of metals" in collaboration with Technical Committee CEN/TC 459/SC 1 "Test methods for steel (other than chemical analysis)" 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of an identical text or by endorsement, at the latest by November 2022, and conflicting national standards shall be withdrawn at the latest by November 2022.

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.

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Endorsement notice

The text of ISO 16808:2022 has been approved by CEN as EN ISO 16808:2022 without any modification.

INTERNATIONAL STANDARD

ISO 16808

Second edition
2022-05

Metallic materials — Sheet and strip — Determination of biaxial stress- strain curve by means of bulge test with optical measuring systems

*Matériaux métalliques — Tôles et bandes — Détermination de
la courbe contrainte-déformation biaxiale au moyen de l'essai de
gonflement hydraulique avec systèmes de mesure optiques*



Reference number
ISO 16808:2022(E)

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ISO 16808:2022(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 2, *Ductility testing*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 459/SC 1, *Test methods for steel (other than chemical analysis)*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16808:2014), of which it constitutes a minor revision. The changes are as follows:

- the designation of $r_{1,100}$ in [Table 1](#) has been modified;
- the title of [Figure A.4](#) has been modified;
- [Formula \(B.2\)](#) has been modified;
- Annex A has been deleted and other annexes have been renumbered accordingly;
- the status of [Annex A](#) (formerly Annex B) has been changed to informative;
- minor editorial changes have been made to align with ISO/IEC Directives Part 2, 2021.

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Metallic materials — Sheet and strip — Determination of biaxial stress-strain curve by means of bulge test with optical measuring systems

1 Scope

This document specifies a method for determination of the biaxial stress-strain curve of metallic sheets having a thickness below 3 mm in pure stretch forming without significant friction influence. In comparison with tensile test results, higher strain values can be achieved.

NOTE In this document, the term "biaxial stress-strain curve" is used for simplification. In principle, in the test the "biaxial true stress-true strain curve" is determined.

2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN