ICS 31.180 SLOVENSKÁ TECHNICKÁ NORMA Máj 2025

STN	**Skúšobné metódy na elektrotechnické materiály, dosky s plošnými spojmi a iné spájacie štruktúry a zostavy Časť 2-809: Skúška koeficientu X/Y tepelnej rozťažnosti (CTE) pre hrubé základné materiály podľa TMA**	**STN EN IEC 61189-2-809** 34 6513

Test methods for electrical materials, circuit boards and other interconnection structures and assemblies - Part 2-809: X/Y coefficient of thermal expansion (CTE) test for thick base materials by TMA

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. 04/25

Obsahuje: EN IEC 61189-2-809:2025, IEC 61189-2-809:2024

140382

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61189-2-809

January 2025

ICS 31.180

English Version

Test methods for electrical materials, circuit boards and other interconnection structures and assemblies - Part 2-809: X/Y coefficient of thermal expansion (CTE) test for thick base materials by TMA (IEC 61189-2-809:2024)

Méthodes d'essai pour les matériaux électriques, les circuits imprimées et autres structures d'interconnexion et ensembles - Partie 2-809: Essai du coefficient de dilatation thermique (CTE) X/Y pour matériaux de base épais à l'aide d'un analyseur thermomécanique (TMA) (IEC 61189-2-809:2024)

Prüfverfahren für Elektromaterialien, Leiterplatten und andere Verbindungsstrukturen und Baugruppen - Teil 2-809: Prüfung des X/Y-Wärmeausdehnungskoeffizienten (CTE) für dicke Grundwerkstoffe mittels TMA (IEC 61189-2-809:2024)

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 61189-2-809:2025 E

European foreword

The text of document 91/1983/FDIS, future edition 1 of IEC 61189-2-809, prepared by TC 91 "Electronics assembly technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61189-2-809:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2026-01-31
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-01-31

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Endorsement notice

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60194-1	-	Printed boards design, manufacture and assembly - Vocabulary - Part 1: Common usage in printed board and electronic assembly technologies	-	-
IEC 60194-2	-	Printed boards design, manufacture and assembly - Vocabulary - Part 2: Common usage in electronic technologies as well as printed board and electronic assembly technologies	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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FOREWORD

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IEC 61189-2-809 has been prepared by IEC technical committee 91: Electronics assembly technology. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
91/1983/FDIS	91/1994/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 61189 series, published under the general title *Test methods for electrical materials, circuit boards and other interconnection structures and assemblies*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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TEST METHODS FOR ELECTRICAL MATERIALS, CIRCUIT BOARDS AND OTHER INTERCONNECTION STRUCTURES AND ASSEMBLIES –

Part 2-809: X/Y coefficient of thermal expansion (CTE) test for thick base materials by TMA

1 Scope

This part of IEC 61189 defines the method to be followed for the determination of the X/Y coefficient of thermal expansion of electrical insulating materials by the use of a thermomechanical analyser (TMA).

This method is applicable to materials that are solid of the entire range of temperature used and retain sufficient hardness and rigidity over the temperature range so that irreversible indentation of the specimen by the sensing probe does not occur.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60194-1, *Printed boards design, manufacture and assembly – Vocabulary – Part 1: Common usage in printed board and electronic assembly technologies*

IEC 60194-2, *Printed boards design, manufacture and assembly – Vocabulary – Part 2: Common usage in electronic technologies as well as printed board and electronic assembly technologies*