



**SLOVENSKI STANDARD**  
**SIST EN ISO 10964:1998**

01-februar-1998

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Adhesives - Determination of torque strength of anaerobic adhesives on threaded fasteners (ISO 10964:1993)

Klebstoffe - Bestimmung der Drehfestigkeit von anaeroben Klebstoffen auf Befestigungselementen mit Gewinde (ISO 10964:1993)

Adhésifs - Détermination des couples fonctionnels sur des fixations filetées collées avec des adhésifs anaérobies (ISO 10964:1993)

Ta slovenski standard je istoveten z: EN ISO 10964:1997

**ICS:**

83.180          Lepila                                  Adhesives

**SIST EN ISO 10964:1998**                                  en

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EUROPEAN STANDARD

EN ISO 10964

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1997

ICS 83.180

Descriptors: See ISO document

English version

**Adhesives - Determination of torque strength of  
anaerobic adhesives on threaded fasteners  
(ISO 10964:1993)**

Adhésifs - Détermination des couples fonctionnels sur des fixations filetées collées avec des adhésifs anaérobies (ISO 10964:1993) Klebstoffe/- Bestimmung der Drehfestigkeit von anaeroben Klebstoffen auf Befestigungselementen mit Gewinde (ISO 10964:1993)

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This European Standard was approved by CEN on 1997-05-28. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CEN

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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EN ISO 10964:1997

## Foreword

The text of the International Standard from Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 193 "Adhesives", the secretariat of which is held by AENOR.

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 December 1997, and conflicting national standards shall be withdrawn at the latest by December 1997.

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

## Endorsement notice

The text of the International Standard ISO 10964:1993 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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**Annex ZA (normative)**  
**Normative references to international publications**  
**with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u>   | <u>EN</u>  | <u>Year</u> |
|--------------------|-------------|--|------------|-------------|
| ISO 898-1          | 1988        | Mechanical properties of fasteners -<br>Part 1: Bolts, screws and studs                                  | EN 20898-1 | 1991        |
| ISO 898-2          | 1991        | Mechanical properties of fasteners -<br>Part 2: Nuts with specified proof load values -<br>Coarse thread | EN 20898-2 | 1993        |

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INTERNATIONAL  
STANDARD

**ISO**  
**10964**

First edition  
1993-08-15

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**Adhesives — Determination of torque  
strength of anaerobic adhesives on  
threaded fasteners**

**iTeh STANDARD PREVIEW**

*Adhésifs — Détermination des couples fonctionnels sur des fixations  
filetées collées avec des adhésifs anaérobies*

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Reference number  
ISO 10964:1993(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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10964 was prepared by Technical Committee ISO/TC 61, *Plastics*, Sub-Committee SC 11, *Products*.

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# Adhesives — Determination of torque strength of anaerobic adhesives on threaded fasteners

## 1 Scope

The test method described in this International Standard is used to make comparative assessments of the securing or locking effect of anaerobic adhesives used in threaded assemblies. This method may be used for other types of adhesives, if considered suitable.

It is used to overcome friction in the thread and under the bolt head.

**3.3 breakaway torque,  $T_{BA}$ :** Initial torque required to break the bond measured at the first movement between the nut and the bolt, when unscrewing an unseated assembly (without spacer sleeve, see figure 1).

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 291:1977, *Plastics — Standard atmospheres for conditioning and testing*.

ISO 898-1:1988, *Mechanical properties of fasteners — Part 1: Bolts, screws and studs*.

ISO 898-2:1992, *Mechanical properties of fasteners — Part 2: Nuts with specified proof load values — Coarse thread*.

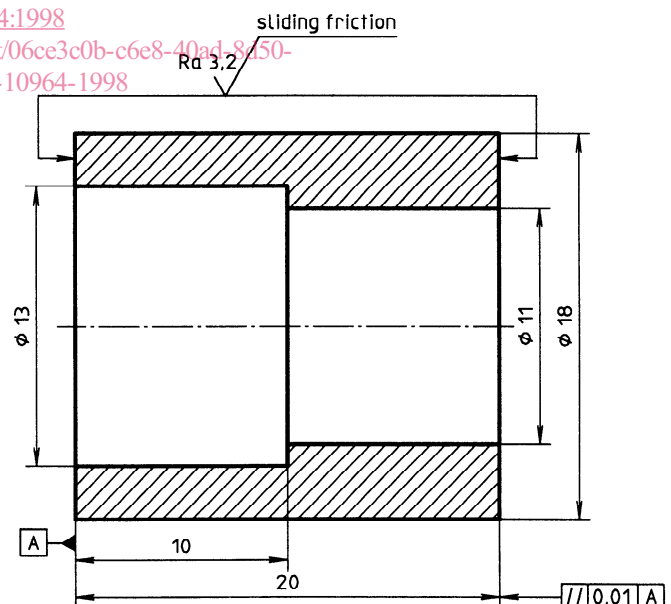
## 3 Definitions

For the purposes of this International Standard, the following definitions apply.

**3.1 on torque,  $T_{ON}$ :** Maximum torque required to screw the nut onto a bolt precoated with adhesive.

**3.2 input torque,  $T_{IN}$ :** Torque applied to introduce or increase the axial load in the assembly.

Dimensions in millimetres  
General tolerances  $\pm 0,2$  mm  
Roughness value in micrometres



47 HRC to 50 HRC hardness carbon steel.  
Surface condition: corrosion and grease-free.

**Figure 1 — Spacer sleeve**

**3.4 breakloose torque,  $T_{BL}$ :** Initial torque required to decrease or eliminate the axial load in a preloaded assembly.