

**Liimid. Juhis standardsete laboratoorsete  
vanandamistingimuste valikuks liimühenduste  
katsetamisel**

Adhesives - Guide to the selection of standard laboratory  
ageing conditions for testing bonded joints

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 29142:2000 sisaldab Euroopa standardi EN 29142:1993+AC:1997 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 11.01.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 29142:2000 consists of the English text of the European standard EN 29142:1993+AC:1997.

This standard is ratified with the order of Estonian Centre for Standardisation dated 11.01.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

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katsed, liimid, liimühendused, plastid, teimid, teimiolud, valmistamisteimid (materjalid)

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www ISO 9142:1993  
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English version

**Adhesives - Guide to the selection of standard  
laboratory ageing conditions for testing bonded  
joints (ISO 9142:1990)**

Adhésifs - Guide pour la sélection de  
conditions normales d'essai de vieillissement  
en laboratoire des assemblages collés  
(ISO 9142:1990)

Klebstoffe - Auswahlrichtlinien für  
Labor-Alterungsbedingungen zur Prüfung von  
Klebverbindungen (ISO 9142:1990)

This European Standard was approved by CEN on 1993-03-31. 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.

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**CEN**

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

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

## Foreword

Following the positive result of the primary questionnaire, CEN Technical Board decided to submit

ISO 9142:1990 Adhesives - Guide to the selection of standard laboratory ageing conditions for testing bonded joints

to the formal vote. The result was positive.

NOTE: There are other, specific, standards for classifying wood adhesives and for testing their performance requirements, and for testing adhesives for aerospace applications.

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 1993, and conflicting national standards shall be withdrawn at the latest by December 1993.

In accordance with the CEN/CENELEC Internal Regulations, following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of the International Standard ISO 9142:1990 has been adopted by CEN without any modification.

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EUROPEAN STANDARD

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Adhesives - Guide to the selection of standard  
laboratory ageing conditions for testing bonded  
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Klebstoffe - Auswahlrichtlinien für  
Labor-Alterungsbedingungen zur  
Prüfung von Klebverbindungen

This corrigendum becomes effective on 1997-02-19 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 1997-02-19 pour introduction dans les trois versions officielles de la EN.

Die Berichtigung tritt am 1997-02-19 in Kraft und ist in die drei offiziellen Fassungen der EN einzufügen.

CEN

European Committee for Standardization  
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Ref. no. EN 29142:1993/AC:1997 E/F/D

*Page 11*

**Clause D.5**

In the last line of the left-hand column, replace  $(-20 \pm 2)^\circ\text{C}$  by  $(-20 \pm 3)^\circ\text{C}$ .

*Page 17*

**Clause D.11**

Make the same correction as above.

*Page 19*

**Clause E.4**

Change the clause heading to read:

**Procedure E4 — Exposure to neutral salt spray at elevated temperature and humidity**

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# INTERNATIONAL STANDARD

**ISO**  
**9142**

First edition  
1990-12-15

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## **Adhesives — Guide to the selection of standard laboratory ageing conditions for testing bonded joints**

*Adhésifs — Guide pour la sélection de conditions normales d'essai de  
vieillissement en laboratoire des assemblages collés*



Reference number  
ISO 9142:1990(E)

## Contents

	Page
1 Scope .....	1
2 Normative references .....	1
3 Principle .....	1
4 Materials .....	1
5 Apparatus .....	1
6 Specimens .....	2
7 Procedure .....	2
8 Expression of results .....	2
9 Test report .....	3
<b>Annexes</b>	
A General conditions of ageing .....	4
A.1 Preferred temperatures .....	4
A.2 Preferred exposure periods .....	4
A.3 Preferred relative humidities .....	4
B Atmospheric conditions for single-variable ageing .....	5
B.1 Set of conditions B1 .....	5
B.2 Set of conditions B2 .....	5
C Atmospheric conditions for multi-variable ageing .....	5
D Atmospheric conditions for cyclic ageing .....	6
D.1 Cycle D1 — Heat and humidity cycle .....	7
D.2 Cycle D2 — Heat, cold (thermal shock) and humidity cycle ...	8
D.3 Cycle D3 — Heat, cold and humidity cycle .....	9
D.4 Cycle D4 — Humid-heat and cold cycle .....	10
D.5 Cycle D5 — Dry-heat, humid-heat and cold cycle .....	11

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D.6	Cycle D6 — Immersion in water and drying .....	12
D.7	Cycle D7 — Alternating immersion in water and drying .....	13
D.8	Cycle D8 — Immersion in boiling water and drying .....	14
D.9	Cycle D9 — Immersion in boiling water followed by drying, and then dry heat and re-immersion in boiling water .....	15
D.10	Cycle D10 — Immersion in boiling water followed by drying, and then re-immersion in boiling water .....	16
D.11	Cycle D11 — Immersion in water, exposure to cold and exposure to dry heat .....	17
D.12	Cycle D12 — Immersion in salt solution and drying .....	18
E	Special procedures .....	19
E.1	Procedure E1 — Exposure to neutral salt spray .....	19
E.2	Procedure E2 — Exposure to water in a damp compress .....	19
E.3	Procedure E3 — Exposure to laboratory light sources .....	19
E.4	Procedure E4 — Exposure to neutral salt spray .....	19
F	Exposure to chemical attack .....	20

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## 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 9142 was prepared by Technical Committee ISO/TC 61, *Plastics*.

Annexes A, B, C, D, E and F of this International Standard are for information only.

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# Adhesives — Guide to the selection of standard laboratory ageing conditions for testing bonded joints

## 1 Scope

This International Standard describes laboratory ageing conditions under which adhesive joints may be exposed to various environmental influences — climatic or chemical — for the purpose of assessing the effects of such influences on certain properties.

The ageing conditions are applicable to bonded assemblies and may be used to constitute a set of tests for the evaluation of an adhesive.

The results obtained using the procedures described in this International Standard are not necessarily applicable to the determination of the service life of a bonded assembly because there is no direct relation between the test results and the behaviour of a bonded assembly over a period of time under service conditions. However, for certain specific applications, experience with the procedures may enable a correlation to be established.

NOTE 1 The ageing conditions should be related to the specific application of the adhesives.

## 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 175:1981, *Plastics — Determination of the effects of liquid chemicals, including water.*

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

ISO 483:1988, *Plastics — Small enclosures for conditioning and testing using aqueous solutions to maintain relative humidity at constant value.*

ISO 3205:1976, *Preferred test temperatures.*

ISO 3768:1976, *Metallic coatings — Neutral salt spray test (NSS test).*

ISO 4587:1979, *Adhesives — Determination of tensile lap-shear strength of high strength adhesive bonds.*

ISO 4588:1989, *Adhesives — Preparation of metal surfaces for adhesive bonding.*

ISO 4892:1981, *Plastics — Methods of exposure to laboratory light sources.*

ISO 6238:1987, *Adhesives — Wood-to-wood adhesive bonds — Determination of shear strength by compression loading.*

## 3 Principle

Definition of the ageing conditions that relate most closely to the application for the adhesive by reference to the preferred conditions set out in annex A to annex F.

## 4 Materials

4.1 **De-ionised or distilled water**, having a conductivity less than 200  $\mu\text{S}/\text{m}$ .

4.2 **Materials for ageing tests** under special environmental conditions (see appropriate annex).

## 5 Apparatus

5.1 **Conditioning chamber**, meeting the requirements of ISO 483, capable of being maintained at a temperature of  $(23 \pm 2)^\circ\text{C}$  and a relative humidity of  $(50 \pm 5)\%$ .