

# **SLOVENSKI STANDARD**

## **SIST EN ISO 12944-8:1998**

**01-september-1998**

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**Barve in laki - Korozijska zaščita jeklenih konstrukcij z zaščitnimi premaznimi sistemi - 8. del: Razvoj specifikacij za novogradnje in vzdrževanje (ISO 12944-8:1998)**

Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 8: Development of specifications for new work and maintenance (ISO 12944-8:1998)

Beschichtungsstoffe - Korrosionsschutz von Stahlbauten durch Beschichtungssysteme - Teil 8: Erarbeiten von Spezifikationen für Erstschutz und Instandsetzung (ISO 12944-8:1998)

Peintures et vernis - Anticorrosion des structures en acier par systemes de peinture - Partie 8: Développement de spécifications pour les travaux neufs et l'entretien (ISO 12944:1998)

**Ta slovenski standard je istoveten z: EN ISO 12944-8:1998**

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**ICS:**

25.220.20	Površinska obdelava	Surface treatment
87.040	Barve in laki	Paints and varnishes
91.080.13	Jeklene konstrukcije	Steel structures

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**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN ISO 12944-8

May 1998

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English version

Paints and varnishes - Corrosion protection of steel structures  
by protective paint systems - Part 8: Development of  
specifications for new work and maintenance (ISO 12944-  
8:1998)

Peintures et vernis - Anticorrosion des structures en acier  
par systèmes de peinture - Partie 8: Développement de  
spécifications pour les travaux neufs et l'entretien (ISO  
12944:1998)

Beschichtungsstoffe - Korrosionsschutz von Stahlbauten  
durch Beschichtungssysteme - Teil 8: Erarbeiten von  
Spezifikationen für Erstschutz und Instandsetzung (ISO  
12944-8:1998)

This European Standard was approved by CEN on 2 March 1998.

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.

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 CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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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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## Foreword

The text of the International Standard ISO 12944-8:1998 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes", the secretariat of which is held by DIN.

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 1998, and conflicting national standards shall be withdrawn at the latest by November 1998.

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 12944-8:1998 was 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 2409	1992	Paints and varnishes - Cross-cut test	EN ISO 2409	1994
ISO 4623	1984	Paints and varnishes - Filiform corrosion test on steel	EN ISO 4623	1995
ISO 4624	1978	Paints and varnishes - Pull-off test	EN 24624	1992
ISO 8503-1	1988	Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 1: Specifications and definitions for ISO surface profile comparators for the assessment of abrasive blast-cleaned surfaces	EN ISO 8503-1	1995
ISO 8503-2	1988	Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 2: Method for the grading of surface profile of abrasive blast-cleaned steel - Comparator procedure	EN ISO 8503-2	1995
ISO 8503-3	1998	Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 3: Method for the calibration of ISO surface profile comparators and for the determination of surface profile - Focusing microscope procedure	EN ISO 8503-3	1995
ISO 8503-4	1988	Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 4: Method for the calibration of ISO surface profile comparators and for the determination of surface profile - Stylus instrument procedure	EN ISO 8503-4	1995

ISO 11124-1	1993	Preparation of steel substrates before application of paints and related products - Specifications for metallic blast-cleaning abrasives - Part 1: General introduction and classification	EN ISO 11124-1	1997
ISO 11124-2	1993	Preparation of steel substrates before application of paints and related products - Specifications for metallic blast-cleaning abrasives - Part 2: Chilled-iron grit	EN ISO 11124-2	1997
ISO 11124-3	1993	Preparation of steel substrates before application of paints and related products - Specifications for metallic blast-cleaning abrasives - Part 3: High-carbon cast-steel shot and grit	EN ISO 11124-3	1997
ISO 11124-4	1993	Preparation of steel substrates before application of paints and related products - Specifications for metallic blast-cleaning abrasives - Part 4: Low-carbon cast-steel shot	EN ISO 11124-4	1997
ISO 11126-1	1993	Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 1: General introduction and classification	EN ISO 11126-1	1997
ISO 11126-3	1993	Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 3: Copper refinery slag	EN ISO 11126-3	1997
ISO 11126-4	1993	Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 4: Coal furnace slag	EN ISO 11126-4	1998
ISO 11126-5	1993	Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 5: Nickel refinery slag	EN ISO 11126-5	1998
ISO 11126-6	1993	Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 6: Iron furnace slag	EN ISO 11126-6	1997
ISO 11126-8	1993	Preparation of steel substrates before application of paints and related products - Specifications for non-metallic blast-cleaning abrasives - Part 8: Olivine sand	EN ISO 11126-8	1997
ISO 12944-1	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 1: General introduction	EN ISO 12944-1	1998

ISO 12944-2	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 2: Classification of environments	EN ISO 12944-2	1998
ISO 12944-3	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 3: Design considerations	EN ISO 12944-3	1998
ISO 12944-4	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 4: Types of surface and surface preparation	EN ISO 12944-4	1998
ISO 12944-5	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 5: Protective paint systems	EN ISO 12944-5	1998
ISO 12944-6	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 6: Laboratory performance test methods	EN ISO 12944-6	1998
ISO 12944-7	1998	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 7: Execution and supervision of paint work	EN ISO 12944-7	1998

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**Paints and varnishes — Corrosion  
protection of steel structures by protective  
paint systems —****Part 8:**Development of specifications for new work  
and maintenance

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*Peintures et vernis — Anticorrosion des structures en acier par systèmes  
de peinture —*

*Partie 8: Développement de spécifications pour les travaux neufs et  
l'entretien*

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Reference number  
ISO 12944-8:1998(E)

## ISO 12944-8:1998(E)

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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.

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International Standard ISO 12944-8 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 14, *Protective paint systems for steel structures*.

ISO 12944 consists of the following parts, under the general title *Paints and varnishes - Corrosion protection of steel structures by protective paint systems*:

- Part 1: General introduction*
- Part 2: Classification of environments*
- Part 3: Design considerations*
- Part 4: Types of surface and surface preparation*
- Part 5: Protective paint systems*
- Part 6: Laboratory performance test methods*
- Part 7: Execution and supervision of paint work*
- Part 8: Development of specifications for new work and maintenance*

Annexes A to K are for information only.

## Introduction

Unprotected steel in the atmosphere, in water and in soil is subjected to corrosion that may lead to damage. Therefore, to avoid corrosion damage, steel structures are normally protected to withstand the corrosion stresses during the service life required of the structure.

There are different ways of protecting steel structures from corrosion. ISO 12944 deals with protection by paint systems and covers, in the various parts, all features that are important in achieving adequate corrosion protection. Additional or other measures are possible but require particular agreement between the interested parties.

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In order to ensure effective corrosion protection of steel structures, it is necessary for owners of such structures, planners, consultants, companies carrying out corrosion protection work, inspectors of protective coatings and manufacturers of coating materials to have at their disposal state-of-the-art information in concise form on corrosion protection by paint systems. Such information has to be as complete as possible, unambiguous and easily understandable to avoid difficulties and misunderstandings between the parties concerned with the practical implementation of protection work.

This International Standard – ISO 12944 – is intended to give this information in the form of a series of instructions. It is written for those who have some technical knowledge. It is also assumed that the user of ISO 12944 is familiar with other relevant International Standards, in particular those dealing with surface preparation, as well as relevant national regulations.

Although ISO 12944 does not deal with financial and contractual questions, attention is drawn to the fact that, because of the considerable implications of inadequate corrosion protection, non-compliance with requirements and recommendations given in this standard may result in serious financial consequences.

ISO 12944-1 defines the overall scope of all parts of ISO 12944. It gives some basic terms and definitions and a general introduction to the other parts of ISO 12944. Furthermore, it includes a general statement on health, safety and environmental protection, and guidelines for using ISO 12944 for a given project.

This part of ISO 12944 is intended as an aid when a corrosion protection specification is to be drawn up.

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# Paints and varnishes – Corrosion protection of steel structures by protective paint systems –

## Part 8:

## Development of specifications for new work and maintenance

### 1 Scope

This part of ISO 12944 deals with the development of specifications for corrosion protection of steel structures, using protective paint systems. It relates to new work and maintenance in the workshop or on site and is also applicable to the corrosion protection of individual components. This part of ISO 12944 concerns the corrosion protection of steel structures exposed to different corrosion stresses by environments such as indoors, open-air and immersion in water or burial in soil, as well as special stresses, for example due to medium or high temperatures. The need for different durability ranges is considered.

Steel surfaces that have been hot-dip-galvanized, metal-sprayed, zinc-electroplated or sherardized, and previously painted steel surfaces, are also covered by this part of ISO 12944.

In annex B, reference areas for assessing the quality of the corrosion protection work and the performance of the protective paint systems used are dealt with. Annexes C and D provide detailed flow charts for planning new work and maintenance, which should be taken into account when writing a specification.

If extreme corrosion stresses or high temperatures occur, or the protective paint systems are to be used on other substrates such as non-ferrous metals or concrete, the specifications will have to take this into account. This part of ISO 12944 may also be used as a guide in such cases.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 12944. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 12944 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 2409:1992, *Paints and varnishes - Cross-cut test.*

ISO 2808:1997, *Paints and varnishes - Determination of film thickness.*

ISO 4623:1984, *Paints and varnishes - Filiform corrosion test on steel.*

ISO 4624:1978, *Paints and varnishes - Pull-off test for adhesion.*